CRANDALL HIGH SCHOOL

2021-2022

COURSE GUIDE

TABLE OF CONTENTS

NEW COURSE OFFERINGS

ADVANCEMENT VIA INDIVIDUAL DETERMINATION (AVID) I-IV

Credit: 1 **Grade:** 9-12
Prerequisites: None

Advancement Via Individual Determination (AVID) is an academic elective course that prepares students for college readiness and success, and it is scheduled during the regular school day as a year-long course. Students may earn up to 4 credits in High School for AVID. Each week, students receive instruction utilizing a rigorous college preparatory curriculum provided by AVID Center, tutor-facilitated study groups, motivational activities and academic success skills. In AVID, students participate in activities that incorporate strategies focused on Writing, Inquiry, Collaboration, Organization, and Reading (WICOR), Character Development, Communication, and College Preparedness to support their academic growth. AVID I-IV provides a mechanism for elevating previously middle performing students for college readiness.

ARMY JUNIOR RESERVE OFFICER TRAINING CORPS (JROTC) I-IV

Credit: 1 **Grade:** 9-12
Prerequisites: None

Army JROTC is a leadership course using both theory and practical application to develop leadership. The theory provides the student an opportunity to study the character traits of great leaders and principles of leadership and management. Other emphases include rifle marksmanship and safety, first aid, map reading, financial and logistical management, citizenship in American history and government, service learning, and communication skills. The practical work emphasizes individual and group drill, qualifying with the .177 caliber air rifle, participating in unit inspections, and learning to apply the duties and responsibilities of individuals and leaders. Through the corps of cadets, students learn to take and respond to orders, prepare for higher positions of responsibility, and develop self- discipline, pride, and teamwork. Students may participate in such extracurricular activities as rifle, drill, color guard, orienteering, academic, and physical fitness teams, as well as school and community service projects. The student does not incur any military obligation. One physical education credit can be substituted for JROTC 1.

PEER ASSISTANCE & LEADERSHIP I (PALS 1)

Credit: 1 **Grade:** 11-12
Prerequisites: None

Peer Assistance and Leadership (PALS) is a two-semester course designed to give students in-depth training on peer mentoring, communication skills and problem solving techniques. The students are selected through an application and interview process the prior school year.

PEER ASSISTANCE & LEADERSHIP II (PALS 2)

Credit: 1 **Grade:** 12
Prerequisites: PALS I

Peer Assistance and Leadership (PALS) is a two-semester course designed for students to further develop and apply peer mentoring skills, communication skills and problem solving techniques. PAL 2 students will plan and facilitate leadership training, charity events, and community fundraisers. The students are selected through an application and interview process the prior school year.

TEEN LEADERSHIP

Credit: .5 **Grade:** 9-12
Prerequisites: None

Teen Leadership is a program in which students learn leadership, professional, and business skills. They gain an appreciation for the importance of having a vision when setting personal and professional goals. Students learn to develop a healthy self-concept, build healthy relationships, and understand the concept of personal responsibility. They investigate emotional intelligence and the parameters it measures: self-awareness, self-control, self-motivation, and effective social skills. Students learn skills in public speaking, communication, and problem solving. They also investigate the concept of personal image, the process of principle-based decision-making, and the importance of making responsible financial decisions. They identify the effects of peer pressure and develop skills to counteract those effects. Students also investigate the key aspects of family and group dynamics, thus enabling them to become better family members and citizens.

GRAPHIC DESIGN AND ILLUSTRATION I / GRAPHIC DESIGN AND ILLUSTRATION I LAB

Credit: 1 **Grade:** 9-12
Prerequisites: None

Graphic Design and Illustration I spans all aspects of the advertising and visual communication 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 are expected to develop an understanding of the industry with a focus on fundamental elements and principles of visual art and design.

AMERICAN SIGN LANGUAGE (ASL) I-IV

Credit: 1 **Grade:** 9-12
Prerequisites: None for ASL I, ASL II-IV requires prior class in the sequence

This course is designed for students with no knowledge of Deaf American culture or its language, American Sign Language (ASL). Training is designed to lay a foundation of expressive and receptive skills of ASL used by the Deaf Community through basic linguistic structures and analysis of signs. Content includes basic statements and vocabulary, finger spelling, questions, classifiers, spatial relationships, time and numbers. In addition, cultural knowledge and an increased understanding of the Deaf Community will be introduced. Communication is the overarching goal of all LOTE courses. Scheduling priority will be given to students taking ASL to fulfill their language requirement for graduation.

Availability of programs of study and courses may vary based on availability due to staffing, facilities and student interest.

LANGUAGE ARTS

COURSE SEQUENCES:

The graduation requirements for four years of English can be met through two different sequences of English.

Regular Sequence

English I, II, III and IV are the English courses recommended for the on-grade level or below grade level student and meet the requirements for the Foundation, Foundation with Endorsement, and Distinguished level of Achievement Graduation Plans.

Advanced Sequence

HONORS English I, II, AP and/or Dual Credit English III and IV are recommended for the student who is performing above grade level.

Recommended criteria for honors/AP/ Dual Credit include:

a. A grade of 90+ in a previous English Course.
b. Advanced performance on the Reading portion of the STAAR test.
c. Parent approval.
d. Teacher recommendation.
e. Dual credit students must pass the Reading and Writing portions of the TSI (required)

ENGLISH I

Credit: 1 **Grade:** 9
Prerequisites: Credit in 8th grade English

Literature and grammar are taught all year. Literature will be the study of literary forms with an emphasis on the literary techniques used by writers of short stories, dramas, and other genres, as well as the concepts and terminology needed for knowledgeable discussion of literature. Students will also examine how a number of writers treat a given theme in different ways.

Grammar and composition include practice in informative, literary, and persuasive writing, development of compositions from topic and sentence outlines, and organization of compositions of more than one paragraph. This course will also include the study of the grammatical structure of sentences, good usage, and library skills. Preparation for the STAAR ENGLISH 1 EOC (END OF COURSE) EXAM will be an integral part of English I.

ENGLISH I HONORS

Credit: 1 **Grade:** 9
Prerequisites: Credit in 8th grade English

Recommendation: 90% or above in 8th grade English and teacher recommendation. Both the student and parent(s) are requested to attend the Honors Orientation presentation during the semester preceding the student's enrollment in English I HONORS.

English I HONORS is a cumulative and sequential program that emphasizes grammar, mechanics, usage, and composition skill at a more advanced level. It also emphasizes the development of critical thinking skills. It exceeds the traditional course by including advanced topics related to research skill, oral language development, literature concepts and skills, literary appreciation, and a variety of types of compositions. A study of additional major literary works is required in this course. The primary purpose and goal of this course is to help students be prepared to take the English Advanced Placement exam during their junior and/or senior year. Preparation for the STAAR ENGLISH 1 EOC (END OF COURSE) EXAM will be an integral part of English I HONORS.

Summer assignment is possible.

ENGLISH II

Credit: 1 **Grade:** 10
Prerequisites: English I

Grammar and literature will be taught all year. The grammar and composition will include grammatical structures of sentences, the writing process, and composition development. The student will study form and function of the parts of speech, appropriate English usage, and library skills. The course will include study of paragraph development with a higher degree of complexity than English I. The student will continue to develop compositions including informative, literary, and persuasive writing. Literature will be the continued study of literary techniques and terminology while developing increasingly abstract concepts. Preparation for the STAAR ENGLISH II EOC (END OF COURSE) EXAM will be an integral part of English II

ENGLISH II HONORS

Credit: 1 **Grade:** 10
Prerequisites: English I

Recommendation: English I credit with credit in English I HONORS highly recommended and strongly encouraged and desirable.

English II HONORS integrates grammar, literature, and composition. The course is designed for the student showing an advanced understanding of language concepts and skills and wishing to make an in-depth study of writing and literature. The content exceeds the traditional course by including advanced topics related to research skills, oral language development, literary elements, literary appreciation, and a variety of compositions. A study of additional major literary works is required. The primary purpose and goal of this course is to help students be prepared to take the English Advanced Placement Exam during their junior and/or senior year. Preparation for the STAAR ENGLISH II EOC (END OF COURSE) EXAM will be an integral part of English II HONORS.

Summer assignment is possible.

ENGLISH III

Credit: 1 **Grade:** 11
Prerequisites: English II

Literature and grammar are both taught all year. American Literature will be the study of United States Literature from the early Colonial settlements to the present. Literary genre will include poetry, short stories, drama, the novel, and non-fiction. Grammar and composition will focus on an analysis of discourse, the editing and revision process, and development of mature grammatical and stylistic features. The students will practice informative, persuasive, literary, and creative writing with emphasis on informative and persuasive. The course work will include at least one fully documented library research paper.

ENGLISH III AP LANGUAGE

Credit: 1 **Grade:** 11
Prerequisites: English II

Recommendation: English II credit with credit in English II HONORS highly recommended and strongly encouraged and desirable. Both the student and parent(s) are requested to attend the AP Orientation presentation during the semester preceding the student's enrollment in English III AP.

English III AP is essentially a college preparatory course and is designed to prepare junior students for success at the college level. This course integrates reading and language skills, composition, literature, and vocabulary development. The course includes representative writers, the social thought, and the genres of the major periods of American and World literature. The student is given the opportunity to develop knowledge of syntax, semantics, and rhetoric and to use this knowledge in the writing of various types of literary and informative discourse. The course work includes at least one fully documented library research paper in which literary criticism is incorporated into an extended literary analysis. A study of additional major literary works is required in this course.

In November of the academic year, the AP student decides whether to take the Advanced Placement examination in May. For a fee, the student may take the AP ENGLISH LANGUAGE examination. The student takes only one exam. Grades are reported on a 5-point scale, with a 5 representing extremely well qualified. More than 1300 participating colleges usually honor a grade of 3 or above in granting college credit or advanced standing. *Students should check with individual colleges for their AP credit policies.*

Summer assignment is possible.

If a student fails an AP class the first semester, he/she will be moved to a regular class of the same subject for the next semester. AP test deposit monies will not be refunded.

DUAL CREDIT ENGLISH III
ENGLISH 1301 ENGLISH COMPOSITION RHETORIC

Credit: .5 for HS & 3 College Hours **Grade:** 11
Prerequisites: English II credit with credit in English II HONORS highly recommended and students must pass TSI requirements for Reading and Writing.

TVCC Dual Credit fee and book cost required

English 1301, the first half of freshman college English, aims to help the student produce effective writing, which observes the conventions of Edited American English – i.e., writing which is acceptable in the academic and professional world. The student will be encouraged to find and improve his or her own writing style while being guided through the composition process.

Summer assignment is possible.

DUAL CREDIT ENGLISH III
ENGLISH 1302 ENGLISH COMPOSITION AND LITERATURE

Credit: .5 for HS & 3 College Hours **Grade:** 11
Prerequisites: English 1301

TVCC Dual Credit fee and book cost required

English 1302 is a continuation of English 1301 with emphasis on the study and critical evaluation of modern literature, primarily from American writers of fiction, poetry, and drama. Extensive writing assignments are required.

Summer assignment is possible.

ENGLISH IV

Credit: 1 **Grade:** 12
Prerequisites: English III

Literature and grammar are taught all year. British Literature from its origins to the present is the major area of study of English IV literature. The literature is arranged according to historical time periods. Literary genre will include poetry, short stories, drama and non-fiction. Grammar and composition will focus on the development of mature grammatical and stylistic features and the editing and revising process.

COLLEGE PREPARATORY ENGLISH

Credit: 1 **Grade:** 12
Prerequisites: English III

This course is designed to increase the college readiness of current high school students in English Language Arts. This course covers the ten Student Learning Objectives (SLO's) as defined by the state of Texas for indicating college readiness in English (Integrated Reading and Writing). In addition, this course aligns with the Texas College and Career Readiness Standards (CCRS) in the areas of writing, reading, and research. This course is also in compliance with multiple Texas Essential Knowledge and Skills (TEKS) for English Language Arts and Reading, specifically English III and English IV. This course provides the foundation work in the areas of reading and writing for the student who intends to advance to college level work.
College Preparatory English is a one-semester course paired with a semester of regular English 4.

ENGLISH IV AP LITERATURE

Credit: 1 **Grade:** 12
Prerequisites: English III

Recommendation: English III credit with credit in English III AP highly recommended and strongly encouraged and desirable. Both the student and parent(s) are requested to attend the AP Orientation presentation during the semester preceding the student's enrollment in English IV AP.

English IV AP is essentially a college preparatory course and is designed to prepare senior students for success at the college level. English IV AP meets the essential elements of regular English IV Academic, which includes the study of British literature. In addition, the student will engage in oral and written communication, original research, and critical evaluation of selected readings in fiction, poetry, drama, and non-fiction, poetry, drama, and non-fiction at the college level of difficulty.

In November of the academic year, the AP student decides whether to take the Advanced Placement examination in May. For a fee, the student may take the AP ENGLISH LITERATURE examination. The student takes only one exam. Grades are reported on a 5-point scale, with a 5 representing extremely well qualified. More than 1300 participating colleges usually honor a grade of 3 or above in granting college credit or advanced standing. *Students should check with individual colleges for their AP credit policies.*

Summer assignment is possible.

If a student fails an AP class the first semester, he/she will be moved to a regular class of the same subject for the next semester. AP test deposit monies will not be refunded.

DUAL CREDIT ENGLISH IV
ENGLISH 2322 SURVEY OF BRITISH LITERATURE I

Credit: .5 for HS & 3 College Hours **Grade:** 12
Prerequisite: English 1301 credit.

TVCC Dual Credit fee and book cost required

English 2322 is a study of British literature from the Middle Ages through the Restoration and the 18th Century with selections from but not limited to Malory, Marlowe, Chaucer, and Shakespeare. A fully documented research paper is required as part of the course work.

Summer assignment is possible.

DUAL CREDIT ENGLISH IV
ENGLISH 2323 SURVEY OF BRITISH LITERATURE II

Credit: .5 for HS & 3 College Hours **Grade:** 12
Prerequisite: English 1301 credit and students must meet dual credit requirements.

TVCC Dual Credit fee and book cost required

Beginning with the Romantics, this course continues the study of British masterworks through the 19th and 20th centuries to the present including but not limited to selections from Blake, Wordsworth, Byron Shelley, Keats, and Conrad. A fully documented research paper or a critical analysis of one or more of the poets from the Romantic era will be required.

Summer assignment is possible.

JOURNALISM I

Credit: 1 **Grade:** 9-12
Prerequisites: None

In Journalism, students are expected to write in a variety of forms and for a variety of audiences and purposes. Students will become analytical consumers of media and technology to enhance their communication skills. Published work of professional journalists, Writing, technology and visual and electronic media are used as tools for learning as students create, clarify, critique, write, and produce effective communications. Students enrolled in Journalism will learn journalistic traditions, research self-selected topics, write journalistic texts, and learn the principles of publishing

YEARBOOK PRODUCTION I, II, III

Credit: 1 **Grade:** 10-12
Prerequisites: Yearbook sponsor approval. (Limited to 15 students)

This course offers practical experience in public relations, advertising, layout design, photography, writing copy, and other basic journalistic and publication practices. Students enrolled in Advanced Journalism: Yearbook I, II, III/Newspaper I, II, III/Literary Magazine communicate in a variety of forms such as print, digital, or online media for a variety of audiences and purposes. High school students are expected to plan, draft, and complete written and/or visual communications on a regular basis, carefully examining their copy for clarity, engaging language, and the correct use of the conventions and mechanics of written English. In Advanced Journalism: Yearbook I, II, III/Newspaper I, II, III/Literary Magazine, students are expected to become analytical consumers of media and technology to enhance their communication skills. In addition, students will apply journalistic ethics and standards. Published works of professional journalists, technology, and visual and electronic media are used as tools for learning as students create, clarify, critique, write, and produce effective communications. Students enrolled in Advanced Journalism: Yearbook I, II, III/Newspaper I, II, III/Literary Magazine will refine and enhance their journalistic skills, research self-selected topics, and plan, organize, and prepare a project(s) in one or more forms of media.

MATHEMATICS

COURSE SEQUENCES:

Regular Sequence

Algebra I, Geometry, Algebra II and Pre-Calculus are the math courses recommended for the on-grade level or below grade level student meet the requirements for the Foundation, Foundation with Endorsement, and Distinguished level of Achievement Graduation Plans.

To be able to take Calculus, a student must take Algebra I in the 8th grade or take Geometry and Algebra II during their sophomore year.

Advanced Sequence

HONORS Geometry, HONORS Algebra II, HONORS Calculus, AP Calculus, Dual Credit College Algebra and Dual Credit Pre-Calculus are recommended for the student who is performing above grade level.

Recommended criteria include:

a. A grade of 90+ in a previous Math Course.
b. Advanced performance on the Math portion of the STAAR test.
c. Parent approval.
d. Teacher recommendation**.**
e. **Dual credit students must pass the Math portions of the TSI (required)**

ALGEBRA I

Credit: 1 **Grade:** 9-12
Prerequisites: 8TH grade math credit

In Algebra I, students will build on the knowledge and skills for mathematics in Grades 6-8, which provide a foundation in linear relationships, number and operations, and proportionality. Students will study linear, quadratic, and exponential functions and their related transformations, equations, and associated solutions. Students will connect functions and their associated solutions in both mathematical and real-world situations. Students will use technology to collect and explore data and analyze statistical relationships. In addition, students will study polynomials of degree one and two, radical expressions, sequences, and laws of exponents. Students will generate and solve linear systems with two equations and two variables and will create new functions through transformations.

GEOMETRY

Credit: 1 **Grade:** 10-12
Prerequisites: Algebra I

In Geometry, students will build on the knowledge and skills for mathematics in Kindergarten-Grade 8 and Algebra I to strengthen their mathematical reasoning skills in geometric contexts. Within the course, students will begin to focus on more precise terminology, symbolic representations, and the development of proofs. Students will explore concepts covering coordinate and transformational geometry; logical argument and constructions; proof and congruence; similarity, proof, and trigonometry; two- and three-dimensional figures; circles; and probability. Students will connect previous knowledge from Algebra I to Geometry through the coordinate and transformational geometry strand. In the logical arguments and constructions strand, students are expected to create formal constructions using a straightedge and compass. Though this course is primarily Euclidean geometry, students should complete the course with an understanding that non-Euclidean geometries exist. In proof and congruence, students will use deductive reasoning to justify, prove and apply theorems about geometric figures. Throughout the standards, the term "prove" means a formal proof to be shown in a paragraph, a flow chart, or two-column formats. Proportionality is the unifying component of the similarity, proof, and trigonometry strand. Students will use their proportional reasoning skills to prove and apply theorems and solve problems in this strand. The two- and three-dimensional figure strand focuses on the application of formulas in multi-step situations since students have developed background knowledge in two- and three-dimensional figures. Using patterns to identify geometric properties, students will apply theorems about circles to determine relationships between special segments and angles in circles. Due to the emphasis of probability and statistics in the college and career readiness standards, standards dealing with probability have been added to the geometry curriculum to ensure students have proper exposure to these topics before pursuing their post-secondary education.

GEOMETRY HONORS

Credit: 1 **Grade:** 9-12
Prerequisites: Algebra I
Recommendation: 90% or above in Algebra I and teacher recommendation.

This course includes solid, plane and coordinate geometry. Special emphasis is placed on real-world applications and computerized learning. Our study includes inductive, deductive and creative reasoning as well as the utilization of undefined terms, postulates and theorems. Geometric concepts are enriched through proofs. Students should expect a high level of rigor, daily homework, and extensive memory work in this course.

ALGEBRA II

Credit: 1 **Grade:** 10-12
Prerequisites: Algebra I

In Algebra II, students will build on the knowledge and skills for mathematics in Kindergarten-Grade 8 and Algebra I. Students will broaden their knowledge of quadratic functions, exponential functions, and systems of equations. Students will study logarithmic, square root, cubic, cube root, absolute value, rational functions, and their related equations. Students will connect functions to their inverses and associated equations and solutions in both mathematical and real-world situations. In addition, students will extend their knowledge of data analysis and numeric and algebraic methods.

ALGEBRA II HONORS

Credit: 1 **Grades:** 10-12
Prerequisites: Algebra I
Recommendation: 90% or above in Geometry or Geometry Honors and teacher recommendation.

Topics covered in this class include polynomial functions, rational functions, logarithms, quadratic applications, and the complex number system. Also included are sequences, series, permutations and combinations. Advanced Placement enrichment material is used throughout the course to extend learning. Students should expect a high level of rigor and daily homework in this course.

MATHEMATICAL MODELS W/APPLICATIONS

Credit: 1 **Grades:** 10-12
Prerequisites: Algebra I

In Mathematical Models with Applications, students continue to build on the K-8 and Algebra I foundations as they expand their understanding through other mathematical experiences. Students use algebraic, graphical, and geometric reasoning to recognize patterns and structure, to model information, and to solve problems from various disciplines.

PRE-CALCULUS

Credit: 1 **Grades:** 11-12
Prerequisites: Algebra I, Geometry, and Algebra II

Precalculus is the preparation for calculus. The course approaches topics from a functional point of view, where appropriate, and is designed to strengthen and enhance conceptual understanding and mathematical reasoning used when modeling and solving mathematical and real-world problems. Students systematically work with functions and their multiple representations. The study of Precalculus deepens students' mathematical understanding and fluency with algebra and trigonometry and extends their ability to make connections and apply concepts and procedures at higher levels. Students investigate and explore mathematical ideas, develop multiple strategies for analyzing complex situations, and use technology to build understanding, make connections between representations, and provide support in solving problems.

PRE-CALCULUS HONORS

Credit: 1 **Grade:** 11-12
Prerequisites: Algebra I, Geometry, and Algebra II
Recommendation: Honors Algebra II

Honors Precalculus is the preparation for AP Calculus. The course approaches topics from a functional point of view, where appropriate, and is designed to strengthen and enhance conceptual understanding and mathematical reasoning used when modeling and solving mathematical and real-world problems. Students systematically work with functions and their multiple representations. The study of Honors Precalculus deepens students' mathematical understanding and fluency with algebra and trigonometry and extends their ability to make connections and apply concepts and procedures at higher levels. Students investigate and explore mathematical ideas, develop multiple strategies for analyzing complex situations, and use technology to build understanding, make connections between representations, and provide support in solving problems.

AP CALCULUS

Credit: 1 **Grade:** 11-12
Prerequisites: Precalculus
Recommendation: Honor Precalculus

AP Calculus begins the integrated study of analytic geometry and calculus. Topics covered include: limits, continuity differentiation and integration of algebraic and trigonometric functions, applications of differentiation and integration, differentiation and integration, logarithmic, exponential and hyperbolic functions, methods of integration, conic sections, polar coordinates and parametric curves.

In March of the academic year, the AP student decides whether to take the Advanced Placement examination in May. For a fee, the student may take the AP Calculus examination. The student takes only one exam. Grades are reported on a 5-point scale, with a 5 representing extremely well qualified. More than 1300 participating colleges usually honor a grade of 3 or above in granting college credit or advanced standing. *Students should check with individual colleges for their AP credit policies.*

If a student fails an AP class the first semester, he/she will be moved to a regular class of the same subject for the next semester. AP test deposit monies will not be refunded.

AP STATISTICS

Credit: 1 **Grade:** 11-12
Prerequisites: Geometry, Algebra II
Recommendation: Honors Geometry, Honors Algebra II

The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four broad conceptual themes: 1. Exploring Data: Describing patterns and departures from patterns 2. Sampling and Experimentation: Planning and conducting a study 3. Anticipating Patterns: Exploring random phenomena using probability and simulation 4. Statistical Inference: Estimating population parameters and testing hypotheses. (College Board AP Statistics Course Description)

In November of the academic year, the AP student decides whether to take the Advanced Placement examination in May. For a fee, the student may take the AP Statistics examination. The student takes only one exam. Grades are reported on a 5-point scale, with a 5 representing extremely well qualified. More than 1300 participating colleges usually honor a grade of 3 or above in granting college credit or advanced standing. *Students should check with individual colleges for their AP credit policies.*

If a student fails an AP class the first semester, he/she will be moved to a regular class of the same subject for the next semester. AP test deposit monies will not be refunded.

DUAL CREDIT COLLEGE ALGEBRA
MATH 1314 COLLEGE ALGEBRA

Credit: .5 for HS & 3 College Hours **Grade:** 11-12
Prerequisites: Algebra I, Geometry, Algebra II, and students must pass TSI Math requirements.

TVCC Dual Credit fee and book cost required

College Algebra is an in-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions and systems of equations using matrices. Additional topics such as sequences, series, probability and conics may be included.

DUAL CREDIT PRE-CALCULUS
MATH 2312 PRE-CALCULUS MATH

Credit: .5 for HS & 3 College Hours **Grade:** 11-12
Prerequisites: Algebra I, Geometry, and Algebra II, MATH 1314

TVCC Dual Credit fee and book cost required

Pre-Calculus is an in-depth combined study of algebra, trigonometry and other topics for calculus readiness. Begins with topics from plane trigonometry including circular functions, solutions of right triangles, graphs, identities, solving trigonometric equations and the use of scientific calculators. Either a programmable or a non-programmable calculator is required. The course will include topics from analytical geometry.

COLLEGE PREPARATORY MATHEMATICS

Credit: 1 **Grade:** 12
Prerequisites: Algebra II

Topics in this two-semester course include real numbers, symbolic representation, graphing linear equations, basic Geometry, rational expressions and equations, and functions. Successful completion of the course and the final examination will result in student readiness for entry-level college mathematics.

FINANCIAL MATHEMATICS

Credit: 1 **Grade:** 11-12
Prerequisite: Algebra I

This course satisfies both a high school Math and CTE graduation requirement

The mathematical process standards describe ways in which students are expected to engage in the content. The placement of the process standards at the beginning of the knowledge and skills listed for each grade and course is intentional. The process standards weave the other knowledge and skills together so that students may be successful problem solvers and use mathematics efficiently and effectively in daily life. The process standards are integrated at every grade level and course. When possible, students will apply mathematics to problems arising in everyday life, society, and the workplace. Students will use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution. Students will select appropriate tools such as real objects, manipulatives, paper and pencil, and technology and techniques such as mental math, estimation, and number sense to solve problems. Students will effectively communicate mathematical ideas, reasoning, and their implications using multiple representations such as symbols, diagrams, graphs, and language. Students will use mathematical relationships to generate solutions and make connections and predictions. Students will analyze mathematical relationships to connect and communicate mathematical ideas. Students will display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

ACCOUNTING II

Credit: 1 **Grade:** 11-12
Prerequisite: Accounting I

This course satisfies both a high school Math and CTE graduation requirement

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.

SCIENCE

COURSE SEQUENCES:

Regular Sequence

Biology, Chemistry, AND/OR Physics, Environmental Systems, Anatomy & Physiology and Forensic Science are the Science courses recommended for the on-grade level or below grade level student and meet the requirements for the Foundation, Foundation with Endorsement, and Distinguished level of Achievement Graduation Plans.

Advanced Sequence

HONORS Biology, HONORS Chemistry, HONORS Physics, AP Biology, AP Chemistry AP Physics, and Dual Credit Anatomy and Physiology are recommended for the student who is performing above grade level.

Recommended criteria include:

a. A grade of 90+ in a previous Science Course.
b. Advanced performance on the Science portion of the STAAR/EOC test.
c. Parent approval.
d. Teacher recommendation.
e. Dual credit students must pass the Reading and Writing portion of the TSI (required)

BIOLOGY I

Credit: 1 **Grade:** 9-12
Prerequisites: None.

Biology is a laboratory-oriented course that is designed for the study of living things In Biology; students conduct laboratory and field investigations, use scientific practices during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Biology study a variety of topics that include: structures and functions of cells and viruses; growth and development of organisms; cells, tissues, and organs; nucleic acids and genetics; biological evolution; taxonomy; metabolism and energy transfers in living organisms; living systems; homeostasis; and ecosystems and the environment. Preparation for the STAAR BIOLOGY I EOC (END OF COURSE) EXAM will be an integral part of BIOLOGY I.

BIOLOGY I HONORS

Credit: 1 **Grade:** 9-12
Prerequisites: None
Recommendation: 90% or above in 8th grade Science and teacher recommendation. Both the student and parent(s) are requested to attend the Honors Orientation presentation during the semester preceding the student's enrollment in HONORS Biology.

HONORS In Biology, students conduct laboratory and field investigations, use scientific practices during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Biology study a variety of topics that include: structures and functions of cells and viruses; growth and development of organisms; cells, tissues, and organs; nucleic acids and genetics; biological evolution; taxonomy; metabolism and energy transfers in living organisms; living systems; homeostasis; and ecosystems and the environment. Preparation for the STAAR BIOLOGY I EOC (END OF COURSE) EXAM will be an integral part of BIOLOGY I.

AP BIOLOGY

Credit: 1 **Grade:** 11-12
Prerequisites: Biology or Honors Biology, Chemistry or Honors Chemistry
Recommendation: 90% or above in Physics and teacher recommendation. Both the student and parent(s) are requested to attend the AP Orientation presentation during the semester preceding the student's enrollment in AP Biology.
AP Biology prepares students for the AP Exam. This course is equivalent to a college freshman biology class. It is designed for students to get a detailed understanding of biological concepts. Extensive lab work and individual reading will be required. The class will complete 12 required College Board labs. Topics to be covered are divided into 3 main categories: Molecules and Cells, Genetics and Evolution, and Organisms and Populations.

In November of the academic year, the AP student decides whether to take the Advanced Placement examination in May. For a fee, the student may take the AP Biology examination. The student takes only one exam. Grades are reported on a 5-point scale, with a 5 representing extremely well qualified. More than 1300 participating colleges usually honor a grade of 3 or above in granting college credit or advanced standing. *Students should check with individual colleges for their AP credit policies.*

If a student fails an AP class the first semester, he/she will be moved to a regular class of the same subject for the next semester. AP test deposit monies will not be refunded.

INTEGRATED PHYSICS & CHEMISTRY

Credit: 1 **Grade:** 9-12
Prerequisites: None

Integrated Physics & Chemistry is a laboratory-oriented course. In Integrated Physics and Chemistry, students conduct laboratory and field investigations, use scientific practices during investigation, and make informed decisions using critical thinking and scientific problem solving. This course integrates the disciplines of physics and chemistry in the following topics: force, motion, energy, and matter.

CHEMISTRY I

Credit: 1 **Grade:** 10-12
Prerequisites: Algebra I, Biology.

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

HONORS CHEMISTRY

Credit: 1 **Grade:** 10-12
Prerequisites: Algebra I, Biology or Honors Biology
Recommendation: 90% or above in Biology and teacher recommendation.

HONORS Chemistry will be a preparatory course for students who plan on a career or college sequence in which chemistry plays an important part. There will be an extensive laboratory progression with emphasis on qualitative and quantitative analysis. Lecture deals with stoichiometry, gas laws, and oxidation. Reduction and organic compounds, practical and career-oriented material will also be presented.

AP CHEMISTRY

Credit: 1 **Grade:** 11-12
Prerequisites: Chemistry or Honors Chemistry, Algebra II or Honors Algebra II
Recommendation: 90% or above in Physics and teacher recommendation. Both the student and parent(s) are requested to attend the AP Orientation presentation during the semester preceding the student's enrollment in AP Chemistry.

The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. For some students, this course enables them to undertake, in their first year, second-year work in the chemistry sequence at their institution or to register in courses in other fields where general Chemistry is a prerequisite. For other students, the AP Chemistry course fulfills the laboratory science requirement and frees time for other courses.

In November of the academic year, the AP student decides whether to take the Advanced Placement examination in May. For a fee, the student may take the AP Chemistry examination. The student takes only one exam. Grades are reported on a 5-point scale, with a 5 representing extremely well qualified. More than 1300 participating colleges usually honor a grade of 3 or above in granting college credit or advanced standing. *Students should check with individual colleges for their AP credit policies.*

If a student fails an AP class the first semester, he/she will be moved to a regular class of the same subject for the next semester. AP test deposit monies will not be refunded.

PHYSICS

Credit: 1 **Grade:** 10-12
Prerequisites: Biology I, Algebra I

Physics is devoted to the study of matter using scientific probes and technology. In Physics, students conduct laboratory and field investigations, use scientific practices during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that include laws of motion; changes within physical systems and conservation of energy and momentum; forces; thermodynamics; characteristics and behavior of waves; and atomic, nuclear, and quantum physics. Students who successfully complete Physics will acquire factual knowledge within a conceptual framework, practice experimental design and interpretation, work collaboratively with colleagues, and develop critical-thinking skills.

HONORS PHYSICS

Credit: 1 **Grade:** 10-12
Prerequisites: Biology I, Algebra I
Recommendation: 90% or above in Chemistry and teacher recommendation.

HONORS Physics is devoted to the study of the interaction of matter and energy. The study of physics includes gaining knowledge of Newtonian laws and their effect; momentum laws and their applications; knowledge of the concepts of work, power and energy; and conversions of one type of energy to another.

AP PHYSICS

Credit: 1 **Grade:** 11-12
Prerequisite: Algebra 1, Geometry, Algebra 2, Pre-Calculus credit or enrolled in Pre-calculus

AP Physics will prepare the student for the AP Physics exam. The curriculum is based on national standards set by The College Board. The course is designed for students who want a greater depth of understanding of physics concepts and who want more extensive laboratory experience. This college-level physics course will cover Newtonian mechanics, thermodynamics, waves, sound, optics, electricity, magnetism, atomic physics, nuclear physics, and relativity. Students will gain both a deeper appreciation of the concepts of Physics and additional problem solving skills. **Upon completion of this course, students are expected to take the AP exam.**

In November of the academic year, the AP student decides whether to take the Advanced Placement examination in May. For a fee, the student may take the AP Physics examination. The student takes only one exam. Grades are reported on a 5-point scale, with a 5 representing extremely well qualified. More than 1300 participating colleges usually honor a grade of 3 or above in granting college credit or advanced standing. *Students should check with individual colleges for their AP credit policies.*

If a student fails an AP class the first semester, he/she will be moved to a regular class of the same subject for the next semester. AP test deposit monies will not be refunded.

ANATOMY & PHYSIOLOGY

Credit: 1 **Grade:** 11-12
Prerequisites: Biology, Chemistry
Recommended Prerequisite: A course from the Health Science Career Cluster

This course satisfies both a high school science and CTE graduation requirement

The Anatomy and Physiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology will study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

DUAL CREDIT ANATOMY & PHYSIOLOGY BIOLOGY 2401 ANATOMY & PHYSIOLOGY 1

Credit: .5 for HS & 3 College Hours **Grade:** 11-12
Prerequisites: Biology, Chemistry and students must pass TSI requirements in Reading and Writing.
Recommended Prerequisite: A course from the Health Science Career Cluster

TVCC Dual Credit fee and book cost required

In Dual Credit Anatomy and Physiology, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

DUAL CREDIT ANATOMY & PHYSIOLOGY BIOLOGY 2402 ANATOMY & PHYSIOLOGY 2

Credit: .5 for HS & 3 College Hours **Grade:** 11-12
Prerequisites: Biology, Chemistry and students must pass TSI requirements in Reading and Writing.
Recommended Prerequisite: A course from the Health Science Career Cluster

TVCC Dual Credit fee and book cost required

In Anatomy and Physiology, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

FORENSIC SCIENCE

Credit: 1 **Grade:** 11-12
Prerequisites: Biology and Chemistry

This course satisfies both a high school science and CTE graduation requirement

Forensic Science is a course that introduces students to the application of science to connect a violation of law to a specific criminal, criminal act, or behavior and victim. Students will learn terminology and procedures related to the search and examination of physical evidence in criminal cases as they are performed in a typical crime laboratory. Using scientific methods, students will collect and analyze evidence such as fingerprints, bodily fluids, hairs, fibers, paint, glass, and cartridge cases. Students will also learn the history and the legal aspects as they relate to each discipline of forensic science.

EARTH AND SPACE SCIENCE

Credit: 1 **Grade:** 11-12
Prerequisites: 3 units of Science (1 can be concurrent), 3 units of Math (1 can be concurrent)

Earth and Space Science is a course designed to build on students' prior scientific and academic knowledge and skills to develop understanding of Earth's system in space and time. An Earth systems approach including the theme of Earth in space and time; how the origin and distribution of resources that sustain life on Earth are the result of interactions among Earth's subsystems over billions of years, the theme of solid Earth; how the geosphere is a collection of complex, interacting, dynamic subsystems linking Earth's interior to its surface, and fluid Earth; how the global ocean is the thermal energy reservoir for surface processes and, through interactions with the atmosphere, influences climate.

ENVIRONMENTAL SYSTEMS

Credit: 1 **Grade:** 11-12
Prerequisites*:* Biology, Chemistry

Environmental Systems is a second-year biology course, which concentrates on environmental issues. In Environmental Systems, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. 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, and changes in environments.

PATHOPHYSIOLOGY

Credit: 1 **Grade:** 11-12
Prerequisites: Biology, Chemistry, Principles of Health Science

This course satisfies both a high school science and CTE graduation requirement

The Pathophysiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Pathophysiology will study disease processes and how humans are affected. Emphasis is placed on prevention and treatment of disease. Students will differentiate between normal and abnormal physiology.

ENGINEERING DESIGN AND PROBLEM SOLVING

Credit: 1 **Grade:** 11-12
Prerequisites: Engineering Design and Problem Presentation, Engineering Design and Presentation I, Algebra 1, Geometry
This course satisfies both a high school science and CTE graduation requirement

The 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, structure, 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 or "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.

SCIENTIFIC RESEARCH AND DESIGN

Credit: 1 **Grade:** 11-12
Prerequisites: Principles of Applied Engineering, Biology, Chemistry, Physics
This course satisfies both a high school science and CTE graduation requirement

Scientific Research and Design 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 of 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

SOCIAL STUDIES

COURSE SEQUENCE:

Regular Sequence:
World Geography, World History, United States History, Financial Literacy and Government/Economics are the Social Studies courses recommended for each high school student, and meet the requirements for the Foundation, Foundation with Endorsement, and Distinguished level of Achievement Graduation Plans.

Advanced Sequence:
AP US History, AP Government, AP Psychology, and Dual Credit US History and Economics are recommended for the student who is performing above grade level.

Recommended criteria include:

a. A grade of 90+ in a previous Social Studies Course.
b. Advanced performance on the Social Studies portion of the STAAR/EOC test.
c. Parent approval.
d. Teacher recommendation.
e. Dual credit students must pass the Reading and Writing portion of the TSI (required)

WORLD GEOGRAPHY

Credit: 1 **Grade:** 9-12
Prerequisites: None

World Geography provides the student with the opportunity to study the interaction of peoples and cultures with their physical environments in the major areas of the world. Students explore various regions of the world while studying their governments, arts, and resources. Areas studied are physical geography, Western Europe, Eastern Europe, Middle East, Sub-Saharan Africa, Asia, and Latin America.

WORLD HISTORY

Credit: 1 **Grade:** 9-12
Prerequisites: None

World History includes the study of the history and development of a variety of world cultures, past and present. Study will provide a basis for students to compare and analyze various ways of live and cultural patterns.

WORLD HISTORY HONORS

Credit: 1 **Grade:** 9-12
Prerequisites: None

World History HONORS includes the study of the history and development of a variety of world cultures, past and present. Study will provide a basis for students to compare and analyze various ways of live and cultural patterns.

UNITED STATES HISTORY

Credit: 1 **Grade:** 11
Prerequisites: None

United States History covers significant people, issues, and events after the Reconstruction, emphasizing present-day issues that have their roots in the past. Besides readings from the text, lecture and group discussion will be the primary tools of communication. Preparation for the STAAR US HISTORY EOC (END OF COURSE) EXAM will be an integral part of US HISTORY.

AP UNITED STATES HISTORY

Credit: 1 **Grade:** 11
Prerequisites: None

Course Objectives: Advanced Placement U.S. History is a full-year college course covering the period from the first European explorations of the Americas to the present. It provides students with a learning experience equivalent to that obtained in most two-semester college introductory U.S. History courses. It is designed to help students acquire the analytical skills and factual knowledge needed to deal critically with a wide range of historical problems. Students will also learn to assess historical materials --- their relevance to a given issue, their reliability and their importance ----- and to weigh the evidence and interpretations presented in historical scholarship. The course will help the student to develop the skills necessary to arrive at conclusions based on informed judgment and to present reasons and evidence clearly and persuasively in essay form. Preparation for the STAAR US HISTORY EOC (END OF COURSE) EXAM will be an integral part of US HISTORY.

In November of the academic year, the AP student decides whether to take the Advanced Placement examination in May. For a fee, the student may take the AP US HISTORY examination. The student takes only one exam. Grades are reported on a 5-point scale, with a 5 representing extremely well qualified. More than 1300 participating colleges usually honor a grade of 3 or above in granting college credit or advanced standing. *Students should check with individual colleges for their AP credit policies.*

If a student fails an AP class the first semester, he/she will be moved to a regular class of the same subject for the next semester. AP test deposit monies will not be refunded.

DUAL CREDIT UNITED STATES HISTORY
HISTORY 1301 UNITED STATES HISTORY TO 1877

Credit: .5 for HS & 3 College Hours **Grade:** 11
Prerequisite: Students must pass TSI requirements in Reading and Writing.

TVCC Dual Credit fee and book cost required

A survey is made of the American colonies, their struggle for independence, the development of a political structure and the formative years, the westward movement, the growth of sectionalism, and the Civil War. The social, economic, and political trends are shown

Summer assignment is possible.

DUAL CREDIT UNITED STATES HISTORY
HISTORY 1302 UNITED STATES HISTORY FROM 1877

Credit: .5 for HS & 3 College Hours **Grade:** 11
Prerequisite: History 1301 and students must pass TSI requirements in Reading and Writing.

TVCC Dual Credit fee and book cost required

This is a continuation of the history course surveying American growth, world conflicts, and the emergence of America as a world power. The social, economic, and political trends are shown.

Summer assignment is possible.

PSYCHOLOGY

Credit: .5 **Grade:** 11-12
Prerequisites: None

In Psychology, an elective course, 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.

SOCIOLOGY

Credit: .5 **Grade:** 11-12
Prerequisites: None

Sociology, an elective course, 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 in today's society.

PSYCHOLOGY HONORS

Credit: .5 **Grade:** 11-12
Recommended Prerequisites: None

Students will be introduced 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 the phenomena associated with each of the major subfields within psychology. They also learn about the methods psychologists use in their science practice. Enrollment in this class will prepare students to be successful in the AP Psychology class the following semester.

AP PSYCHOLOGY

Credit: .5 **Grade:** 11-12
Prerequisite: Honors Psychology

Students will be introduced 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 the phenomena associated with each of the major subfields within psychology. They also learn about the methods psychologists use in their science practice. Enrollment in this class will prepare students to be successful on the AP Examination for psychology. **Upon completion of this course, students are expected to take the AP exam.**

In November of the academic year, the AP student decides whether to take the Advanced Placement examination in May. For a fee, the student may take the AP PSYCHOLOGY examination. The student takes only one exam. Grades are reported on a 5-point scale, with a 5 representing extremely well qualified. More than 1300 participating colleges usually honor a grade of 3 or above in granting college credit or advanced standing. *Students should check with individual colleges for their AP credit policies.*

If a student fails an AP class the first semester, he/she will be moved to a regular class of the same subject for the next semester. AP test deposit monies will not be refunded.

ECONOMICS

Credit: .5 **Grade:** 12
Prerequisites: World Geography or World History, US History

Emphasis is placed on the essentials and benefits of the American economic system. Students are expected to gain the knowledge, skills, and attitudes, which will enable them to contribute to and maintain the system.

DUAL CREDIT ECONOMICS
ECONOMICS 2301 PRINCIPLES OF MACROECONOMICS

Credit: .5 for HS & 3 College Hours **Grade:** 12
Prerequisite: World Geography or World History, US History and students must pass TSI requirements in Reading and Writing.

TVCC Dual Credit fee and book cost required

This course will include a study of economic problems such as inflation, unemployment, and economic stabilization by monetary and fiscal policy. Macroeconomic concepts of total spending, total output and income, money and banking, and the Keynesian and monetary approaches to national income analysis are discussed.

UNITED STATES GOVERNMENT

Credit: .5 **Grade:** 12
Prerequisites: World Geography or World History, US History

U. S. Government (Civics) is the study of such topics as: Principles and concepts of American democracy; U. S. and state constitution; civil liberties and legal rights; economic systems; branches of the national government; and an introduction to state and local government. Emphasis is placed on political participation, decision-making, and the right and responsibilities of American citizenship.

AP GOVERNMENT

Credit: .5 **Grade:** 12
Prerequisites: World Geography or World History, US History

U. S. Government (Civics) is the study of such topics as: Principles and concepts of American democracy; U. S. and state constitution; civil liberties and legal rights; economic systems; branches of the national government; and an introduction to state and local government. Emphasis is placed on political participation, decision-making, and the right and responsibilities of American citizenship. **Upon completion of this course, students are expected to take the AP exam**.

In November of the academic year, the AP student decides whether to take the Advanced Placement examination in May. For a fee, the student may take the AP GOVERNMENT examination. The student takes only one exam. Grades are reported on a 5-point scale, with a 5 representing extremely well qualified. More than 1300 participating colleges usually honor a grade of 3 or above in granting college credit or advanced standing. *Students should check with individual colleges for their AP credit policies.*

If a student fails an AP class the first semester, he/she will be moved to a regular class of the same subject for the next semester. AP test deposit monies will not be refunded.

FOREIGN LANGUAGE

COURSE SEQUENCE:

Regular Sequence:
Spanish I and Spanish II AND/OR American Sign Language (ASL) I and II are the courses recommended for LOTE for each high school student, and meet the requirements for the Foundation, Foundation with Endorsement, and Distinguished level of Achievement Graduation Plans.

Advanced Sequence:
Spanish I Honors, Spanish II Honors, Spanish III Honors, and AP Spanish IV are recommended for the student who is performing above grade level. There is no advance sequence for American Sign Language.

Recommended criteria include:

a. A grade of 90+ in a previous Spanish Course.
b. Advanced performance on the Social Studies portion of the STAAR/EOC test.
c. Parent approval.
d. Teacher recommendation.

SPANISH I

Credit: 1 **Grade:** 9-11
Prerequisites: None

Spanish I is designed to develop the student's ability to read, write, and speak Spanish. Conversational expressions and basic grammar will be stressed. The course will also include a basic study of composition, reading and Hispanic cultures. This course is a prerequisite to Spanish II.

SPANISH 1 HONORS

Credit: 1 **Grade:** 9-11
Prerequisites: None

This course covers everything in Spanish I, and conforms to AP standards. Students will use learning strategies to complete tasks that are aligned with AP goals and mirror tasks asked on AP exams.

SPANISH II

Credit: 1 **Grade:** 9-12
Prerequisites: Spanish I credit

Spanish II is a continuation of the language skills introduced in Spanish I. Basic grammar and additional vocabulary are added to the fundamentals of speaking, reading, and writing a second language. Spanish II is required for all transcripts excluding Minimum.

SPANISH II HONORS

Credit: 1 **Grade:** 9-12
Prerequisites: Spanish I credit

This course covers everything in Spanish II, and conforms to AP standards. Students will use learning strategies to complete tasks that are aligned with AP goals and mirror tasks asked on AP exams.

SPANISH III - HONORS

Credit: 1 **Grade:** 10-12
Prerequisites: Spanish II.

Students in Spanish III should perform on a Novice High to Intermediate Low proficiency level for reading and writing. In listening and speaking, students of logographic languages should perform on an Intermediate Low to Intermediate Mid proficiency level. Students at the Novice High proficiency level express meaning in simple, predictable contexts through the use of learned and recombined phrases and short sentences. Novice High students are best able to understand sentence-length information within highly contextualized situations and sources. Novice High students may generally be understood by sympathetic listeners and readers accustomed to dealing with language learners. Novice High students are consistently successful when performing Novice-level tasks. Novice High students show evidence of Intermediate Low proficiency but lack consistency.

SPANISH IV
SPANISH LANGUAGE & COMPOSITION AP

Credit: 1 **Grade:** 11-12
Prerequisites: Spanish III.

Fluency in speaking and in understanding Spanish at an advanced level is developed through group discussion and analysis of advanced placement testing materials. Both reading and writing skills are strengthened through intense grammatical review. This course provides a full academic year of advanced study. Opportunities for media interaction are included. Upon completion of this course, students are expected to take the AP exam.

In November of the academic year, the AP student decides whether to take the Advanced Placement examination in May. For a fee, the student may take the AP SPANISH & LANGUAGE COMPOSITION examination. The student takes only one exam. Grades are reported on a 5-point scale, with a 5 representing extremely well qualified. More than 1300 participating colleges usually honor a grade of 3 or above in granting college credit or advanced standing. *Students should check with individual colleges for their AP credit policies.*

If a student fails an AP class the first semester, he/she will be moved to a regular class of the same subject for the next semester. AP test deposit monies will not be refunded.

AMERICAN SIGN LANGUAGE (ASL) I

Credit: 1 **Grade:** 9-12
Prerequisites: None

This course is designed for students with no knowledge of Deaf American culture or its language, American Sign Language (ASL). Training is designed to lay a foundation of expressive and receptive skills of ASL used by the Deaf Community through basic linguistic structures and analysis of signs. Content includes basic statements and vocabulary, finger spelling, questions, classifiers, spatial relationships, time and numbers. In addition, cultural knowledge and an increased understanding of the Deaf Community will be introduced. Communication is the overarching goal of all LOTE courses. Scheduling priority will be given to students taking ASL to fulfill their language requirement for graduation.

FINE ARTS

ART I

Credit: 1 **Grade:** 9-12
Prerequisites: None

Students will learn to appreciate art and practice artistic skills throughout the year. Students will be exposed to terminology that will enhance their ability to discuss artistic form. Many different art projects will be completed during the course. Some of the areas of skill will include drawing, painting, design and sculpture. Students will gain valuable insight and experience in the world of art.

ART II: CERAMICS

Credit: 1 **Grade:** 10-12
Prerequisites: Art I

CERAMICS is a course focusing on building with clay. Emphasis will be placed on the design elements; line, shape, texture, color, and form. Focus will be on the hand building techniques: pinch, coil and slabs. Functional as well as sculptural applications will be explored. Introduction to traditional and historical ceramic arts will be incorporated into projects. Students will be introduced to the craft of wheel thrown pottery on a limited basis. Various glaze and decoration techniques for finishing work will be introduced. Individual creativity will be emphasized.

ART III: 2D ART AND DESIGN

Credit: 1 **Grade:** 10-12
Prerequisites: Art 1

2D ART & DESIGN familiarizes students with the elements and principles of design. This will be accomplished through the application of art theory to specific assigned problems. While exploring various media, students will learn specific ways to think creatively and develop original, innovative ideas. The assignments in this course will involve specific aspects of design and will teach students both the vocabulary and concepts of 2-dimensional design.

ART III: AP ART HISTORY

Credit: 1 **Grade:** 11-12
Prerequisites: None

This course satisfies both a high school history and fine arts graduation requirement

The AP Art History course welcomes students into the global art world to engage with its forms and content as they research, discuss, read, and write about art, artists, art making, and responses to and interpretations of art. By investigating specific course content of 250 works of art characterized by diverse artistic traditions from prehistory to the present, the students develop an in-depth, holistic understanding of the history of art from a global perspective. Students learn and apply skills of visual, contextual, and comparative analysis to engage with a variety of art forms, developing understanding of individual works and interconnections across history.

In November of the academic year, the AP student decides whether to take the Advanced Placement examination in May. For a fee, the student may take the AP ART HISTORY examination. The student takes only one exam. Grades are reported on a 5-point scale, with a 5 representing extremely well qualified. More than 1300 participating colleges usually honor a grade of 3 or above in granting college credit or advanced standing. *Students should check with individual colleges for their AP credit policies.*

If a student fails an AP class the first semester, he/she will be moved to a regular class of the same subject for the next semester. AP test deposit monies will not be refunded.

ART IV: AP 2-D ART AND DESIGN

Credit: 1 **Grade:** 11-12
Prerequisites: 2 LEVELS OF ART

The AP Art and Design program consists of three different courses and AP Portfolio Exams—AP 2-D Art and Design, AP 3-D Art and Design, and AP Drawing—corresponding to college and university foundations courses. Students may choose to submit any or all of the AP Portfolio Exams. Students create a portfolio of work to demonstrate inquiry through art and design and development of materials, processes, and ideas over the course of a year. Portfolios include works of art and design, process documentation, and written information about the work presented. In May, students submit portfolios for evaluation based on specific criteria, which include skillful synthesis of materials, processes, and ideas and sustained investigation through practice, experimentation, and revision, guided by questions. Students may choose to submit any or all of the AP Portfolio Exams.

In November of the academic year, the AP student decides whether to take the Advanced Placement examination in May. For a fee, the student may submit an AP ART PORTFOLIO. The student takes only one exam. Grades are reported on a 5-point scale, with a 5 representing extremely well qualified. More than 1300 participating colleges usually honor a grade of 3 or above in granting college credit or advanced standing. *Students should check with individual colleges for their AP credit policies.*

If a student fails an AP class the first semester, he/she will be moved to a regular class of the same subject for the next semester. AP test deposit monies will not be refunded.

Dance I

Credit: 1 **Grade:** 9-12
Prerequisites: None

This course will focus on dance within a variety of dance genres at an introductory level. Students will acquire vocabulary and skills in ballet, jazz, modern, tap, hip hop and other genres. Dance history, choreography and performance skills will be introduced. The class is participatory in nature, utilizing movement as a form of creative expression. Specific attire will be required. Attendance at after school rehearsals and performances may be required. Successful completion of both semesters of this course will satisfy the Fine Arts credit or PE credit required for graduation.

Dance II

Credit: 1 **Grade:** 10-12
Prerequisites: Dance I

This course builds on the technical facility and skills attained in Dance I using advanced skills and concepts through continued study of various dance genres. In addition, course objectives will emphasize (1) creative expression through movement; (2) awareness of space, time, and energy in dance technique and improvisational studies; (3) development of self-confidence through the use of the body as an expressive instrument; and (4) appreciation of dance as an art form. Specific attire will be required. Attendance at after school rehearsals and performances may be required. Successful completion of both semesters of this course will satisfy the Fine Arts credit or PE credit required for graduation.

Dance III

Credit: 1 **Grade:** 11-12
Prerequisites: Dance II

Dance III students will build on skills and techniques learned in Dance II, including creative expression, improvisation, and appreciation of dance as an art form. Qualities of movement are also explored. Kinesthetic awareness and movement memory is emphasized as well. Specific attire will be required. Attendance at after school rehearsals and performances may be required. Successful completion of both semesters of this course will satisfy the Fine Arts credit or PE credit required for graduation.

Dance IV

Credit: 1 **Grade:** 12
Prerequisites: Dance III

This course focuses on the advanced dancer. An emphasis will be placed on style, technique and choreography. This class will also allow students to explore different avenues of dance performance beyond high school. Specific attire will be required. Attendance at after school rehearsals and performances may be required. Successful completion of both semesters of this course will satisfy the Fine Arts credit or PE credit required for graduation.

DRILL TEAM I, II, III, IV

Credit: 1 **Grade:** 9-12
Prerequisites: Must pass a series of qualifying auditions.

Drill Team is a precision dance and drill team. Activities include performing at extra-curricular activities. The estimated student expenses are made available at tryouts. The first year of the drill team can fulfill the PE requirement.

JV BAND I, II, III, IV

Credit: .5-1 **Grade:** 9-12
Prerequisites: Audition for Placement. One-Day Spring Band Camp.

Concert band is the featured performance ensemble for instrumental music in the spring. This group works on music from the prescribed music list of the University Interscholastic League. Emphasis is placed on sight-reading and characteristic sound. The group participates in UIL and invitational concert contests as well as taking a band trip each spring. Students are encouraged to participate in UIL Solo and Ensemble at both the Region and State levels.

Varsity Band I, II, III, IV

Credit: .5 FA & .5 PE **Grade:** 9-12
Prerequisites: Recommendation by middle school band director or audition.

Marching band is the featured performance ensemble for instrumental music in the fall. This group performs at all football games and pep rallies throughout the season as well as competes in UIL and invitational marching contests. The group participates in local parades and plays a concert for the Winter Arts Festival at the end of the fall semester. Members of the group specialize in wind instruments, drum-line, pit percussion, or color guard. Special rehearsal times are scheduled for various groups within the organization. Students are encouraged to participate in All-State band auditions as well as auditions for leadership positions within the organization.

JAZZ BAND I, II, III

Credit: 1 **Grade:** 9-12

Prerequisites: Audition for Placement

Jazz Band places an emphasis on modern music with several specialty groups covering music from big band to rock in an instructional lab environment. The first half hour is spent in the study of music theory for the fall or music history in the spring. The "Jazz Band" consists of up to 18 instrumentalists (saxophones, trombones, trumpets, and rhythm section) but does allow for some substitutions.

ROCK BAND I, II, III, IV

Credit: 1 **Grade:** 9-12
Prerequisites: Audition for Placement

The "Cover Band" ensemble is made up of keyboard, rhythm and lead guitars, bass, and drums combined with up to 8 vocalists (usually double SATB in voicing) This group performs at various events throughout the year and participates in UIL and invitational contests. There are also opportunities for a percussion ensemble in this class if there is enough interest. Students involved in the CHS musical will also be in this class.

AP MUSIC THEORY

Credit: 1 **Grade:** 11-12
Prerequisites: None

This course satisfies both a high school history and fine arts graduation requirement

AP Music theory involves an in-depth study of the fundamentals of music with a focus on rhythmic and melodic dictation, four-part harmony, writing for voices and instruments, as well as advanced study in 12 tone series and 20th century music techniques. This class will be taught using the AP exam for Music Theory as a syllabus.

In November of the academic year, the AP student decides whether to take the Advanced Placement examination in May. For a fee, the student may take the AP MUSIC THEORY examination. The student takes only one exam. Grades are reported on a 5-point scale, with a 5 representing extremely well qualified. More than 1300 participating colleges usually honor a grade of 3 or above in granting college credit or advanced standing. *Students should check with individual colleges for their AP credit policies.*

If a student fails an AP class the first semester, he/she will be moved to a regular class of the same subject for the next semester. AP test deposit monies will not be refunded.

VOCAL ENSEMBLE I

Credit: 1 **Grade:** 9-12
Prerequisites: None

Four basic strands--foundations: music literacy; creative expression; historical and cultural relevance; and critical evaluation and response--provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. The foundation of music literacy is fostered through reading, writing, reproducing, and creating music, thus developing a student's intellect. Through creative expression, students apply their music literacy and the critical-thinking skills of music to sing, play, read, write, and/or move. By experiencing musical periods and styles, students will understand the relevance of music to history, culture, and the world, including the relationship of music to other academic disciplines and the vocational possibilities offered. Through critical listening, students analyze, evaluate, and respond to music, developing criteria for making critical judgments and informed choices.

THEATRE ARTS I

Credit: 1 **Grade:** 9-12
Prerequisites: None

This course is open to all interested students and is an introductory course to the world of theatre. Please note, this is a participation course and students will be expected to fully take part in all class activities every day. Speaking, acting, rehearsing, memorization, and performing in front of others are all key components of this course. Students in this course must use their imagination and creativity daily. Students will also improvise, practice physical and vocal warm up drills, explore dramatic structure, technical theatre, and develop an appreciation of theatre. Students will be provided with opportunities to participate in school productions.

THEATRE ARTS II

Credit: 1 **Grade:** 10-12
Prerequisites: Must have successfully completed Theatre Arts I and teacher approval.

Students will learn advanced characterization skills, explore contemporary and classical theatre, auditioning, and realize career opportunities. They also explore performance criticism. Activities will include various theatrical venues including mime, children’s theatre, puppetry, and theatre productions.

TECHNICAL THEATRE I, II, III, IV

Credit: 1 **Grade:** 9-12
Prerequisites: None

In this course students learn about the different areas of technical theatre including set design, lighting design, costuming, sound design, makeup design, and stage management. Students will learn technical terminology, do work related to the theatre’s productions, and will do design projects for class and competition.

JV THEATRE PRODUCTION I, II, III, IV

Credit: 1 **Grade:** 9-12
Prerequisites: Students must pass a qualifying audition for the course and teacher approval.

The basic purpose of this course is to give students a beginning experience in theatrical production. Students selected to participate in this course do so with the understanding that they may be working in an acting or technical position on every production put up for the semester. Students will keep production notebooks and will have analytical and evaluative projects to complete as part of the course. Students also understand that due to the nature of this course, they will be required to attend rehearsals extending past the regular school day. Students are expected to adjust their schedule and time accordingly.

THEATRE PRODUCTION I, II, III, IV

Credit: 1 **Grade:** 9-12
Prerequisites: Students must pass a qualifying audition for the course and teacher approval.

The basic purpose of this course is to give student experience in theatrical production. Students selected to participate in this course do so with the understanding that they may be working in an acting or technical position on every production put up for the semester. Students will keep production notebooks and will have analytical and evaluative projects to complete as part of the course. Students also understand that due to the nature of this course, they will be required to attend rehearsals extending past the regular school day. Students are expected to adjust their schedule and time accordingly.

HEALTH, P.E. AND ATHLETICS

HEALTH EDUCATION

Credit: .5 **Grade:** 9-12
Prerequisites: None

Health Education is a state required course for graduation and provides coverage of ten health concepts recommended for comprehensive health instruction. This course includes instruction in environment and community health; consumer health; care of the human body; nutrition; mental health; substances that modify behavior; prevention of diseases; chronic health conditions; accident prevention; first aid; emergency care and family life education.

PHYSICAL EDUCATION I, II, III, IV

Credit: 1 **Grade:** 9-12
Prerequisites: None

Foundations of Personal Fitness represents a new approach in physical education and the concept of personal fitness. The basic purpose of this course is to motivate students to strive for lifetime personal fitness with an emphasis on the health-related components of physical fitness. The knowledge and skills taught in this course include teaching students about the process of becoming fit as well as achieving some degree of fitness within the class. The concept of wellness or striving to reach optimal levels of health is the cornerstone of this course and is exemplified by one of the course objectives – students designing their own personal fitness program.

OUTDOOR EDUCATION

Credit: 1 **Grade:** 9-12
Prerequisites: None

Students enrolled in adventure outdoor education are expected to develop competency in outdoor education activities that provide opportunities for enjoyment and challenge. Emphasis is placed upon student selection of activities that also promote a respect for the environment and that can be enjoyed for a lifetime

CHEERLEADING

Credit: 1 **Grade:** 9-12
Prerequisites: Must be a member of the freshmen, Junior Varsity or Varsity cheerleading squads.

The cheerleading class will consist of physical fitness activities, dance routines, and gymnastics. Activities include performing at extra-curricular activities.

ATHLETICS

Credit: 1 **Grade:** 9-12
Prerequisites: pass a physical examination, and have the approval of the coach.

Athletics provides a series of competitive games scheduled during the year.

The sports offered for boys during the athletic period are:
Football
Basketball
Tennis
Soccer
Baseball
Cross-Country
Track
Golf
Power Lifting

The sports offered for girls during the athletic period are:
Volleyball
Basketball
Softball
Tennis
Soccer
Cross-Country
Track
Golf
Power Lifting

ATHLETIC TRAINER

Credit: 1 **Grade:** 9-12
Prerequisites: Instructor approval, students must be able to stay before and/or after school for practices and attend summer training.

This course provides an opportunity for the study and application of the components of sports medicine. It will include administrative duties in sports medicine, prevention of athletic injuries, recognition, evaluation and immediate care of athletic injuries, rehabilitation and management skills, taping and wrapping techniques, emergency procedures, sports psychology, and therapeutic exercise.

SPORTS MEDICINE I

Credit: 1 **Grade:** 9-12
Prerequisites: None

This course provides an opportunity for the study and application of the components of sports medicine including sports medicine, concepts of sports injury, athletic healthcare team, sports injury law, sports injury prevention, sports psychology, nutrition, recognition of injuries, emergency action plan and initial injury evaluation, first aid/CPR/AED, the injury process, immediate care of athletic injuries of specific body areas, skin conditions in sports, blood borne pathogens, thermal injuries, and special medical concerns of the adolescent athlete.

ARMY JUNIOR RESERVE OFFICER TRAINING CORPS (JROTC) I-IV

Credit: 1 **Grade:** 9-12
Prerequisites: None

Army JROTC is a leadership course using both theory and practical application to develop leadership. The theory provides the student an opportunity to study the character traits of great leaders and principles of leadership and management. Other emphases include rifle marksmanship and safety, first aid, map reading, financial and logistical management, citizenship in American history and government, service learning, and communication skills. The practical work emphasizes individual and group drill, qualifying with the .177 caliber air rifle, participating in unit inspections, and learning to apply the duties and responsibilities of individuals and leaders. Through the corps of cadets, students learn to take and respond to orders, prepare for higher positions of responsibility, and develop self- discipline, pride, and teamwork. Students may participate in such extracurricular activities as rifle, drill, color guard, orienteering, academic, and physical fitness teams, as well as school and community service projects. The student does not incur any military obligation. One physical education credit can be substituted for JROTC 1.

LOCALLY DEVELOPED CORE CURRICULUM

ENGLISH I ALTERNATIVE

Credit: 1 **Grade:** 9
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance and approval by the ARD committee.

Applied English I will focus on developing skills in the areas of expressive, receptive, written, and/or symbolic representations of language. Attention is given to effective communication. Students will begin learning survival-reading vocabulary.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

ENGLISH I MODIFIED

Credit: 1 **Grade:** 9
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance and approval by the ARD committee.

Literature and grammar are taught through a modified, general education curriculum that addresses the individual needs of students through Individual Education Plans. Literature will be the study of a variety of genres and the concepts and terminology needed for knowledgeable discussion of literature. Grammar will include the study of the grammatical structure of sentences and the development and organization of compositions.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

ENGLISH II ALTERNATIVE

Credit: 1 **Grade:** 10
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee.

Applied English II will focus on understanding social and environmental cues, and the social appropriateness of communication. Students will continue to learn survival reading vocabulary.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

ENGLISH II MODIFIED

Credit: 1 **Grade:** 10
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee.

Literature and grammar are taught through a modified, general education curriculum that addresses the individual needs of students through Individual Education Plans. Literature will continue to be the study of literary techniques and terminology. Students will use oral and written language to respond to literature.
Grammar will focus on the writing process and composition development. Students will plan, draft, and complete written compositions, including informative, literary and persuasive writing.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

ENGLISH III ALTERNATIVE

Credit: 1 **Grade:** 11
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee.

Applied English III will focus on independent living skills directly related to employment. Students will continue to learn survival-reading vocabulary.

ENGLISH III MODIFIED

Credit: 1 **Grade:** 11
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee.

Literature and grammar are taught through a modified, general education curriculum that addresses the individual needs of students through Individual Education Plans. Literature will focus on American Literature. The students will learn poetry, short stories, the novel and non-fiction.

Grammar will focus on the editing and revision process and the development of mature grammatical and stylistic features. Course work will include a research paper.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

ENGLISH IV ALTERNATIVE

Credit: 1 **Grade:** 12
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee.

Applied English IV will continue to develop communication skills to be successful in job setting. Oral and written language skills will be developed to express ideas, needs and to make inquiries. Reading skills will continue to focus on developing survival-reading vocabulary.

ENGLISH IV MODIFIED

Credit: 1 **Grade:** 12
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee.

Literature and grammar are taught through a modified, general education curriculum that addresses the individual needs of students through Individual Education Plans. Literature will focus on British literature. The students will complete a research paper.
Grammar will focus on developing a mature writing style.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

READING IMPROVEMENT I, II, III

Credit: .5-1 **Grade:** 9-12
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee.

Reading Improvement is designed to improve the student's reading skills within a variety of genres, including poetry, text books, plays, news articles, and pleasure reading. Students will receive instruction in word recognition, comprehension strategies, and vocabulary. Reading in the content area will also be developed.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

BASIC COMMUNICATION APPLICATIONS

Credit: .5 **Grade:** 9-12
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance and approval by the ARD committee.

This course of study will help students develop and strengthen interpersonal communication skills. Students will develop skills involved in sending and receiving messages, understanding and using nonverbal communication, and listening for a variety of purposes. The student will be observed in a variety of settings and activities.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

PERSONAL HEALTH

Credit: .5 **Grade:** 9-12
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performances, and approval by the ARD committee.

This course is designed to develop personal health awareness and practices. The focus is on personal health and hygiene, importance of lifetime exercise, diet and nutrition, and growth and development.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

ALGEBRA I MODIFIED

Credit: 1 **Grade:** 9-12
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance and approval by the ARD committee.

Basic Algebra I provides a concrete foundation in basic algebra concepts. Students learn algebraic and symbolic reasoning to study relationships among quantities, define relationships between functions and equations, and to set up and solve problems. Calculator skills are emphasized.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

ALGEBRA 1 ALTERNATIVE

Credit: 1 **Grade:** 9
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee.

Math applications focus on developing fundamental operational skills as applied to daily life and career goals.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

GEOMETRY MODIFIED

Credit: 1 **Grade:** 10-12
Prerequisites: Basic Algebra I or Algebra I
Admission is based on evaluation, review of present levels of academic achievement and functional performance and approval by the ARD committee.

Basic Geometry teaches geometric concepts and develops deductive, inductive and creative thinking skills. The course emphasis is on real world applications. The students will demonstrate a basic understanding of geometric relationships and spatial reasoning.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

GEOMETRY ALTERNATIVE

Credit: 1 **Grade:** 10
Prerequisites: Math Applications I, Basic Algebra I, Algebra I

Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee. Activities develop independent living math skills. Money, banking, time skills, and problem solving strategies are stressed.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

MATH APPLICATIONS III

Credit: 1 **Grade:** 11
Prerequisites: Math Applications I and II, Basic Algebra I, Algebra I, Basic Geometry or Geometry

Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee. Students develop skills related to independent consumer skills, including purchasing goods, services, and general money management.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

BASIC MATH APPLICATION III

Credit: 1 **Grade:** 11
Prerequisites: Basic Algebra I or Algebra I Alternative. Basic Geometry or Geometry Alternative

Admission is based on evaluation, review of present levels of academic achievement and functional performance and approval by the ARD committee. Basic Math Application is used to solve real life applied problems. Algebraic, graphical and geometric reasoning are used to solve real life problems involving money, data, percent, proportional relationships, statistical probability, patterns, design and science.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

MATH APPLICATIONS IV

Credit: 1 **Grade:** 12
Prerequisites: Math Applications I, II and III, Basic Algebra I, Algebra I, Basic Geometry or Geometry
Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee. Students develop skills related to independent consumer skills, including purchasing goods, services, and general money management.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

BASIC MATH APPLICATION IV

Credit: 1 **Grade:** 12
Prerequisites: Algebra I Modified or Algebra I Alternative**,** Geometry Modified or Geometry Alternative, Basic Math Application III

Admission is based on evaluation, review of present levels of academic achievement and functional performance and approval by the ARD committee. Basic Math Application is used to solve real life applied problems. Algebraic, graphical and geometric reasoning are used to solve real life problems involving money, data, percent, proportional relationships, statistical probability, patterns, design and science.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

BIOLOGY MODIFIED

Credit: 1 **Grade:** 9
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee.

Basic Biology is a modified curriculum that begins with a study of the scientific process. The students will study cell structure and the functions of systems in organisms.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

BASIC IPC

Credit: 1 **Grade:** 10-12
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee.

This course focuses on the study of Chemical and Physical laws, concepts, and properties. The students will use hands-on activities to incorporate science into practical applications, projects, and experiences.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

WORLD GEOGRAPHY MODIFIED

Credit: 1 **Grade:** 9-12
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee.

The students will study the major geographic regions of the world. They will learn how geography will affect history and economic systems. They will explore the interdependency of people, places and environments.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

WORLD HISTORY MODIFIED

Credit: 1 **Grade:** 10-12
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee.

Basic World History focuses on the development of human culture from prehistoric times to modern times. Students will study the major world events, political institutions, technological and scientific discoveries, and the role of the family in other cultures.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

UNITED STATES HISTORY MODIFIED

Credit: 1 **Grade:** 10-12
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee.

Students will study the social, cultural, economic, and political developments of the United States of America from 1870 to the present time. Current events will be utilized to improve student's understanding of the relationship of past and present.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

GOVERNMENT MODIFIED

Credit: .5 **Grade:** 12
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee.

Students will study the roles of local, state and national governments. They will also learn the rights and responsibilities of a citizen. They will also study present day government activities through the newspapers and TV.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law

ECONOMICS MODIFIED

Credit: .5 **Grade:** 12
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval by the ARD committee.

Students will develop a basic understanding of the US monetary system and uses of money. They will learn the roles and responsibilities of consumers in the free enterprise system. They will learn the basics of earning, spending, saving and investing. Basic consumer rights will also be addressed.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

CAREER DEVELOPMENT PREPARATION

Credit: .5-1 **Grade:** 9-12
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval of the ARD committee.

This course is designed to expose students to the many adult responsibilities they will face both on and off the job. Students will be exposed to the wide variety of topics they will face as they begin making career choices. Examples of topics covered in VAC include money management, co-worker relationships, teamwork, personal health and safety, adult living, career matching, career training programs, job searches, computer skills, creating resumes, interview procedures, and numerous other career related topics.

CAREER DEVELOPMENT I, II

Credit: 1 **Grade:** 11-12
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval of the ARD committee.

Vocational Adjustment Coordination is a program to help students prepare for the world of work and develop the necessary skills to enter a post-secondary school or training program. Out-of-school placement is a unique part of the program, which allows for realistic on the job experience. Students are responsible for turning in a weekly job report every week, an evaluation completed by the supervisor every six weeks and a copy of their check stub every three weeks.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

CAREER AWARENESS I

Credit: 1 **Grade:** 10
Prerequisites: Admission is based on evaluation, review of present levels of performance, and approval of the ARD committee.

This course is designed to develop the skills necessary for employability. Students will explore finding a job, maintaining a job, and resigning from a job. They will also explore career choices.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

CAREER EXPLORATION I & II

Credit: 1 **Grade:** 11-12
Prerequisites: Admission is based on evaluation, review of present levels of academic achievement and functional performance, and approval of the ARD committee.

Career Exploration provides opportunities for students to learn about employment through job experiences at various job sites in the community or by participating in campus directed programs. Job sites will be selected to allow for a variety of job experiences.

This course is a locally defined skills class and is not subject to highly qualified requirements of the No Child Left Behind law.

ELECTIVES

ADVANCEMENT VIA INDIVIDUAL DETERMINATION (AVID) I-IV

Credit: 1 **Grade:** 9-12
Prerequisites: None

Advancement Via Individual Determination (AVID) is an academic elective course that prepares students for college readiness and success, and it is scheduled during the regular school day as a year-long course. Students may earn up to 4 credits in High School for AVID. Each week, students receive instruction utilizing a rigorous college preparatory curriculum provided by AVID Center, tutor-facilitated study groups, motivational activities and academic success skills. In AVID, students participate in activities that incorporate strategies focused on Writing, Inquiry, Collaboration, Organization, and Reading (WICOR), Character Development, Communication, and College Preparedness to support their academic growth. AVID I-IV provides a mechanism for elevating previously middle performing students for college readiness.

DEBATE I, II, III

Credit: 1 **Grade:** 9-12
Prerequisites: None

Students will learn the skills of analysis, logical and critical thinking, and research skills. Debate formats for Lincoln-Douglas and Cross-Exam Debate will be strongly emphasized. Students will be provided opportunities to compete in tournaments and compete at the UIL level. Debate class is structured around a competitive environment. Students in debate I will be required to participate in one out of town Saturday speech/debate competition per semester. Debate II and III students must compete in two out of town speech tournaments a semester. Students must also participate in the fall and spring Crandall Speech and Debate Tournaments held on a Saturday.

PEER ASSISTANCE & LEADERSHIP I (PALS 1)

Credit: 1 **Grade:** 11-12
Prerequisites: None

Peer Assistance and Leadership (PALS) is a two-semester course designed to give students in-depth training on peer mentoring, communication skills and problem solving techniques. The students are selected through an application and interview process the prior school year.

PEER ASSISTANCE & LEADERSHIP II (PALS 2)

Credit: 1 **Grade:** 12
Prerequisites: PALS I

Peer Assistance and Leadership (PALS) is a two-semester course designed for students to further develop and apply peer mentoring skills, communication skills and problem solving techniques. PAL 2 students will plan and facilitate leadership training, charity events, and community fundraisers. The students are selected through an application and interview process the prior school year.

PROFESSIONAL COMMUNICATIONS

Credit: .5 **Grade:** 9-12
Prerequisites: None

This course also satisfies a high school graduation requirement

Professional Communications blends written, oral, and graphic communication in a career-based environment. Careers in the global economy require individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional oral and written communication. Within this context, students will be expected to develop and expand the ability to write, read, edit, speak, listen, apply software applications, manipulate computer graphics, and conduct Internet research.

ORAL INTERPRETATION I, II, III

Credit: 1 **Grade:** 10-12
Prerequisites: Audition required

Literature and its presentation are integral to understanding the cultural aspects of a society. Students in Oral Interpretation I, II, III will select, research, analyze, adapt, interpret, and perform literary texts as a communication art. Students focus on intellectual, emotional, sensory, and aesthetic levels of texts to attempt to capture the entirety of the author's work. Individual or group performances of literature will be presented and evaluated.

TEEN LEADERSHIP

Credit: .5 **Grade:** 9-12
Prerequisites: None
Teen Leadership is a program in which students learn leadership, professional, and business skills. They gain an appreciation for the importance of having a vision when setting personal and professional goals. Students learn to develop a healthy self-concept, build healthy relationships, and understand the concept of personal responsibility. They investigate emotional intelligence and the parameters it measures: self-awareness, self-control, self-motivation, and effective social skills. Students learn skills in public speaking, communication, and problem solving. They also investigate the concept of personal image, the process of principle-based decision-making, and the importance of making responsible financial decisions. They identify the effects of peer pressure and develop skills to counteract those effects. Students also investigate the key aspects of family and group dynamics, thus enabling them to become better family members and citizens.

AGRICULTURE, FOOD, & NATURAL RESOURCES

PRINCIPLES OF AGRICULTURE, FOOD, AND NATURAL RESOURCES

Credit: 1 **Grade:** 9-12
Prerequisites: None

Principles of Agriculture, Food, and Natural Resources will allow students to develop knowledge and skills regarding career and educational opportunities, personal development, globalization, industry standards, details, practices, and expectations. 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 **Grade:** 10-12
Prerequisites: Principles of Agriculture, Food and Natural Resources

In Livestock Production, students will acquire knowledge and skills related to livestock and the livestock production industry. Livestock Production may address topics related to beef cattle, dairy cattle, swine, sheep, goats, and poultry. To prepare for careers in the field of animal science, students must attain academic skills and knowledge, acquire knowledge and skills related to animal systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings.

VETERINARY MEDICAL APPLICATIONS

Credit: 1 **Grade:** 11-12
Prerequisites: Livestock Production

Veterinary Medical Applications covers topics relating to veterinary practices, including practices for large and small animal species. To prepare for careers in the field of animal science, students must 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.

DUAL CREDIT VETERINARY MEDICAL APPLICATIONS AGAH 1447 ANIMAL REPRODUCTION (SPRING)

Credit: .5 for HS & 3 College Hours **Grade:** 11-12
Prerequisites: Livestock Production and must take TSI but not required to Pass

Possible Book Costs required for Dual Credit through TVCC

Veterinary Medical Applications covers topics relating to veterinary practices, including practices for large and small animal species. To prepare for careers in the field of animal science, students must 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.

ADVANCED ANIMAL SCIENCE

Credit: 1 **Grade:** 11-12
Prerequisites: Biology, Chemistry, Algebra 1, Geometry, Livestock Production

This course satisfies both a high school science and CTE graduation requirement

Advanced Animal Science examines the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to allow for the application of scientific and technological aspects of animal science through field and laboratory experiences. To prepare for careers in the field of animal science, students must attain academic skills and knowledge, acquire knowledge and skills related to animal systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry standards. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings.

DUAL CREDIT ADVANCED ANIMAL SCIENCE AGAH 1401 INTRO. TO ANIMAL SCIENCE (FALL)

Credit: .5 for HS & 3 College Hours **Grade:** 11-12
Prerequisites: Biology, Chemistry, Algebra 1, Geometry, Livestock Production and must take TSI but not required to Pass

Possible Book Costs required for Dual Credit through TVCC

Advanced Animal Science examines the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to allow for the application of scientific and technological aspects of animal science through field and laboratory experiences. To prepare for careers in the field of animal science, students must attain academic skills and knowledge, acquire knowledge and skills related to animal systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry standards. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings.

PRACTICUM IN AGRICULTURE, FOOD & NATURAL RESOURCES

Credit: 2 **Grade:** 12
Prerequisite: 1 credit in the Agriculture, Food, and Natural Resources 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. 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. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

AGRICULTURAL MECHANICS AND METAL TECHNOLOGIES

Credit: 1 **Grade:** 10-12
Prerequisites: Principles of Agriculture, Food, and Natural Resources

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

AGRICULTURAL STRUCTURES DESIGN AND FABRICATION

Credit: 1 **Grade:** 11-12
Prerequisite: Agricultural Mechanics and Metal Technologies

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

LANDSCAPE DESIGN AND MANAGEMENT

Credit: .5 **Grade:** 10-12
Prerequisites: Principles of Agriculture, Food and Natural Resources

Landscape Design and Management is designed to develop an understanding of landscape design and management techniques and practices. To prepare for careers in horticultural systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to horticultural systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

TURF GRASS MANAGEMENT

Credit: .5 **Grade:** 10-12
Prerequisites: Principles of Agriculture, Food and Natural Resources

Turf Grass Management is designed to develop an understanding of turf grass management techniques and practices. To prepare for careers in horticultural systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to horticultural systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

FLORAL DESIGN

Credit: .5 **Grade:** 9-12
Prerequisite: None

Floral Design is designed to develop students' ability to identify and demonstrate the principles and techniques related to floral design as well as develop an understanding of the management of floral enterprises. Through the analysis of artistic floral styles and historical periods, students will develop respect for the traditions and contributions of diverse cultures. Students will respond to and analyze floral designs, thus contributing to the development of lifelong skills of making informed judgments and evaluations. To prepare for careers in floral design, students must attain academic skills and knowledge, acquire technical knowledge and skills related to horticultural 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 and technologies in a variety of settings.

ADVANCED FLORAL DESIGN

Credit: 1 **Grade:** 10-12
Prerequisite: Floral Design

In this course, students build on the knowledge from the *Floral Design* course and are introduced to more advanced floral design concepts, with an emphasis on specialty designs and specific occasion planning. This course focuses on building skills in advanced floral design and providing students with a thorough understanding of the design elements and planning techniques used to produce unique specialty floral designs that support the goals and objectives of a specific occasion or event.

ARCHITECTURE AND CONSTRUCTION

PRINCIPLES OF CONSTRUCTION

Credit: 1 **Grade:** 9-12
Prerequisites: None.

Principles of Construction is intended to provide an introduction and lay a solid foundation for those students entering the construction or craft skilled areas. The course provides a strong knowledge of construction safety, construction mathematics, and common hand and power tools. For safety and liability considerations, limiting course enrollment to 15 students is recommended. This course also provides communication and occupation skills to assist the student in obtaining and maintaining employment.

HEATING, VENTILATION, AND AIR CONDITIONING TECHNOLOGY I

Credit: .5 **Grade:** 10-12
Prerequisite: Principles of Construction or Principles of Agriculture
In Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology I, students will gain knowledge and skills needed to enter the industry as technicians in the HVAC and refrigeration industry or building maintenance industry, prepare for a postsecondary degree in a specified field of construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, principles of HVAC theory, use of tools, codes, and installation of HVAC and refrigeration equipment.

HEATING, VENTILATION, AND AIR CONDITIONING TECHNOLOGY II

Credit: 2 **Grade:** 11-12
Prerequisite: Principles of Construction, or Principles of Agriculture and HVAC I

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

PRACTICUM IN CONSTRUCTION TECHNOLOGY

Credit: 2 **Grade:** 12
Prerequisite: HVAC II

In Practicum in Construction Technology, students will be challenged with the application of knowledge and skills gained in previous construction-related coursework. In many cases students will be allowed to work at a job (paid or unpaid) outside of school or be involved in local projects the school has approved for this class.

INTERIOR DESIGN I

Credit: 1 **Grade:** 10-12
Prerequisite: Algebra I, English I

Interior Design is a technical course that addresses psychological, physiological and sociological needs of individuals by enhancing the environment in which they live and work. Individuals use knowledge and skills related to interior and exterior environments, construction, and furnishings to make wise consumer decisions, increase productivity, and compete in industry.

INTERIOR DESIGN II

Credit: 2 **Grade:** 11-12
Prerequisites: English II, Geometry, and Interior Design I
Interior Design II is a technical laboratory course that includes the application of the employability characteristics, principles, processes, technologies, communication, tools, equipment, and materials related to interior design to meet industry standards.

AUDIO/VIDEO TECHNOLOGY

PRINCIPLES OF ARTS, AUDIO/VIDEO TECHNOLOGY, AND COMMUNICATIONS

Credit: 1 **Grade:** 9-12
Prerequisites: None

The goal of this course is for the student to understand arts, audio/video technology, and communications systems. Within this context, students will be expected to develop an understanding of the various and multifaceted career opportunities in this cluster and the knowledge, skills, and educational requirements for those opportunities.

DIGITAL MEDIA

Credit: 1 **Grade:** 9-12
Prerequisites: None

In Digital Media, students will analyze and assess current and emerging technologies, while designing and creating multimedia projects that address customer needs and resolve a problem. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. The knowledge and skills acquired and practiced will enable students to successfully perform and interact in a technology-driven society. Students will enhance reading, writing, computing, communication, and critical thinking and apply them to the IT environment.

DIGITAL AUDIO TECHNOLOGY I

Credit: 1 **Grade:** 10-12
Prerequisites: Digital Media

Digital Audio Technology I provides learning experiences for students who are interested in audio production careers such as audio for radio and television broadcasting, audio for video and film, audio for animation and game design, music production and live sound, and additional opportunities and skill sets. Students will learn the theory and history of radio production as well the production processes involved in commercial production, scripting, news writing and reporting, audio editing, remote production, and radio programming.

ANIMATION

Credit: 1 **Grade:** 9-12
Prerequisites: None

This course is the study of all aspects of motion graphics. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the history and techniques of the animation industry.

AUDIO/VIDEO PRODUCTION I

Credit: 1 **Grade:** 9-12
Prerequisites: DIM, Digital Audio Technology I

Careers in audio and video technology and film production span all aspects of the audio/video communications industry. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the industry with a focus on pre production, production, and post-production audio and video products.

AUDIO/VIDEO PRODUCTION II

Credit: 2 **Grade:** 10-12
Prerequisites: DIM, Audio/Video Production I

Careers in audio and video technology and film production span all aspects of the audio/video communications industry. Building upon the concepts taught in Audio/Video Production, in addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced understanding of the industry with a focus on pre-production, production, and post-production products. This course may be implemented in an audio format or a format with both audio and video.

AUDIO/VIDEO PRODUCTION I/II LAB

Credit: 1 **Grade:** 10-12
Prerequisites: BIM, Audio/Video Production I

In addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the industry with a focus on pre-production, production, and post-production audio and video products. Requiring a lab co-requisite for the course affords necessary time devoted specifically to the production and post-production process.

COMMERCIAL PHOTOGRAPHY I

Credit: 1 **Grade:** 10-12
Prerequisites: None

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

COMMERCIAL PHOTOGRAPHY II (Including Lab)

Credit: 2 **Grade:** 11-12
Prerequisites: Commercial Photography I

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

DIGITAL COMMUNICATIONS IN THE 21ST CENTURY

Credit: 1 **Grade:** 10-12
Prerequisite: None

Digital Communications in the 21st Century will prepare students for the societal demands of increased civic literacy, independent working environments, global awareness, and the mastery of a base set of analysis and communication skills. Students will be expected to design and present an effective product based on well-researched issues to thoughtfully propose suggested solutions to authoritative stakeholders. The outcome of the process and product approach is to provide students an authentic platform to demonstrate effective application of multimedia tools within the contexts of global communication and collaborative communities and appropriately share their voices to affect change that concerns their future.

DIGITAL ART AND ANIMATION

Credit: 1 **Grade:** 10-12
Prerequisite: None

Digital Art and Animation consists of computer images and animations created with digital imaging software. Digital Art and Animation has applications in many careers, including graphic design, advertising, web design, animation, corporate communications, illustration, character development, script writing, storyboarding, directing, producing, inking, project management, editing, and the magazine, television, film, and game industries. Students in this course will produce various real-world projects and animations.

WEB DESIGN

Credit: 1 **Grade:** 10-12
Prerequisite: None

The student uses digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning experience of others. The student applies digital tools to gather, evaluate, and use information, and understands human, cultural, and societal issues related to technology and practices legal and ethical behavior.

GRAPHIC DESIGN AND ILLUSTRATION I / GRAPHIC DESIGN AND ILLUSTRATION I LAB

Credit: 1 **Grade:** 9-12
Prerequisites: None

Graphic Design and Illustration I spans all aspects of the advertising and visual communication 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 are expected to develop an understanding of the industry with a focus on fundamental elements and principles of visual art and design.

BUSINESS MARKETING AND FINANCE

BUSINESS INFORMATION MANAGEMENT I (BIM 1)

Credit: 1 **Grade:** 9-12
Prerequisites: None

This course satisfies both a high school technology and CTE graduation requirement

Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make successful transitions to the workforce and post-secondary education. Students will apply technical skills through word-processing, spreadsheet, database, and electronic presentation software.

PRINCIPLES OF BUSINESS, MARKETING & FINANCE

Credit: 1 **Grade:** 10-12
Prerequisites: None

In Principles of Business, Marketing, and Finance, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, the marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in business, marketing, and finance.

BUSINESS INFORMATION MANAGEMENT II (BIM II)

Credit: 1 **Grade:** 11-12
Prerequisites: BIM 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 LAW

Credit: 1 **Grade:** 11-12
Prerequisites: 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.

ENTREPRENEURSHIP

Credit: 1 **Grade:** 10-12
Prerequisites: Principles of Business, Marketing, Finance

In Entrepreneurship, students will gain the knowledge and skills needed to become an entrepreneur. Students will learn the principles necessary to begin and operate a business. The primary focus of the course is to help students understand the process of analyzing a business opportunity, preparing a business plan, determining feasibility of an idea using research, and developing a plan to organize and promote the business and its products and services. In addition, students will understand the capital required, the return on investment desired, and the potential for profit while they have hands-on experience coming up with a product to solve a problem, developing that idea, and presenting it to potential investors to make the product design a reality.

BANKING AND FINANCIAL SERVICES

Credit: .5 **Grade:** 10-12
Prerequisite: Principles of Business Marketing and Finance

Banking services are primarily concerned with accepting deposits, lending funds, and extending credit. Banking services include cash management, short-term investments, mortgages and other loans, credit cards, and bill payment. Banking services are delivered via a number of different institutions, from commercial banks (the largest group) and other traditional means (savings and loans associations, credit unions, and local banks) to newer ventures through insurance companies, brokerage houses, and the Internet.

MONEY MATTERS

Credit: 1 **Grade:** 10-12
Prerequisite: Principles of Business Marketing and Finance

In Money Matters, students will investigate money management from a personal financial perceptive. Students will apply critical-thinking skills to analyze financial options based on current and projected economic factors. Students will gain knowledge and skills necessary to establish short-term and long-term financial goals. Students will examine various methods of achieving short-term and long-term financial goals through various methods such as investing, tax planning, asset allocation, risk management, retirement planning, and estate planning.

ACCOUNTING I

Credit: 1 **Grade:** 10-12
Prerequisite: 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

Credit: 1 **Grade:** 11-12
Prerequisite: Accounting I

This course also satisfies a high school graduation requirement

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.

This course satisfies both a high school Math and CTE graduation requirement

FINANCIAL MATHEMATICS

Credit: 1 **Grade:** 11-12
Prerequisite: Algebra I

This course satisfies both a high school Math and CTE graduation requirement

The mathematical process standards describe ways in which students are expected to engage in the content. The placement of the process standards at the beginning of the knowledge and skills listed for each grade and course is intentional. The process standards weave the other knowledge and skills together so that students may be successful problem solvers and use mathematics efficiently and effectively in daily life. The process standards are integrated at every grade level and course. When possible, students will apply mathematics to problems arising in everyday life, society, and the workplace. Students will use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution. Students will select appropriate tools such as real objects, manipulatives, paper and pencil, and technology and techniques such as mental math, estimation, and number sense to solve problems. Students will effectively communicate mathematical ideas, reasoning, and their implications using multiple representations such as symbols, diagrams, graphs, and language. Students will use mathematical relationships to generate solutions and make connections and predictions. Students will analyze mathematical relationships to connect and communicate mathematical ideas. Students will display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

GENERAL EMPLOYABILITY SKILLS

Credit: 1 **Grade:** 10-12
Prerequisites: BIM

This course will provide instruction in general employability skills as well as the prerequisite skills for general employability. Employability skills are the skills and attitudes that allow employees to get along with their co-workers, make important work-related decisions and become strong members of the work team.

HOSPITALITY AND TOURISM

INTRODUCTION TO CULINARY ARTS

Credit: 1 **Grade:** 9-12
Prerequisites: None.

Introduction to Culinary Arts will emphasize the principles of planning, organizing, staffing, directing, and controlling the management of a variety of food service operations. The course will provide insight into the operation of a well-run restaurant. Introduction to Culinary Arts will provide insight into food production skills, various levels of industry management, and hospitality skills. This is an entry-level course for students interested in pursuing a career in the food service industry. This course is offered as a classroom and laboratory-based course.

CULINARY ARTS

Credit: 2 **Grade:** 10-12
Prerequisites: Introduction to Culinary Arts

Culinary Arts begins with the fundamentals and principles of the art of cooking and the science of baking and includes management and production skills and techniques. Students can pursue a national sanitation certification, a Texas culinary specialist certification, or any other appropriate industry certification. This course may be offered as a laboratory-based or internship course. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

ADVANCED CULINARY ARTS

Credit: 2 **Grade:** 11-12
Prerequisites: Culinary Arts

Advanced Culinary Arts will extend content and enhance skills introduced in Culinary Arts by infusing high-level, industry-driven content to prepare students for success in higher education, certifications and/or immediate employment.

PRACTICUM IN CULINARY ARTS

Credit: 2 **Grade:** 11-12
Prerequisites: 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, 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.

LAW AND PUBLIC SERVICE

PRINCIPLES OF LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY

Credit: 1 **Grade:** 9-12
Prerequisites: None

Principles of Law, Public Safety, Corrections, and Security introduces students to professions in law enforcement, protective services, corrections, firefighting, and emergency management services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services. The course provides students with an overview of the skills necessary for careers in law enforcement, fire service, protective services, and corrections.

DISASTER RESPONSE

Credit: 1 **Grade:** 10-12
Prerequisites: Principles of Law, Public Safety, Corrections, and Security

Disaster Response includes basic training of students in disaster survival and rescue skills that would improve the ability of citizens to survive until responders or other assistance could arrive. Students will receive education, training, and volunteer service to make communities safer, stronger, and better prepared to respond to the threats of terrorism, crime, public health issues and disasters of all kinds.

FIREFIGHTER I

Credit: 2 **Grade:** 11-12
Prerequisites: Principles of Law, Public Safety, Corrections, and Security

Firefighter I introduces students to firefighter safety and development. Students will analyze the Texas Commission on Fire Protection rules and regulations, proper incident reporting and records, proper use of personal protective equipment, and the principles of fire safety.

FIREFIGHTER II

Credit: 3 **Grade:** 11-12
Prerequisites: Firefighter I

Firefighter II is the second course in a series for students studying firefighter safety and development. Students will understand the Texas Commission on Fire Protection rules and regulations, proper incident reporting and records, proper use of personal protective equipment, and the principles of fire safety. Students will demonstrate proper use of fire extinguishers, ground ladders, fire hoses, and water supply apparatus systems.

LAW ENFORCEMENT I

Credit: 1 **Grade:** 10-12
Prerequisites: Principles of Law, Public Safety, Corrections and Security

Law Enforcement I is an overview of the history, organization, and functions of local, state, and federal law enforcement. Students will understand the role of constitutional law at local, state, and federal levels; the U.S. legal system; criminal law; and law enforcement terminology and the classification and elements of crime.

COURT SYSTEMS AND PRACTICES

Credit: 1 **Grade:** 11-12
Prerequisites: Principles of Law, Public Safety, Corrections and Security

Court Systems and Practices is an overview of the federal and state court systems. The course identifies the roles of judicial officers and the trial processes from pretrial to sentencing and examines the types and rules of evidence. Emphasis is placed on constitutional laws for criminal procedures such as search and seizure, stop and frisk, and interrogation.

COURT SYSTEMS AND PRACTICES DUAL CREDIT CJCR 1307 CORRECTIONAL SYSTEMS AND PRACTICES

Credit: 1 for HS & 3 College Hours **Grade:** 11-12
Prerequisite: Law I and Student must pass TSI requirements in Reading and Writing

Possible Book Costs required for Dual Credit through TVCC

Dual Credit Court Systems and Practices is an overview of the federal and state court systems. The course identifies the roles of judicial officers and the trial processes from pretrial to sentencing and examines the types and rules of evidence. Emphasis is placed on constitutional laws for criminal procedures such as search and seizure, stop and frisk, and interrogation.

LAW ENFORCEMENT II

Credit: 1 **Grade:** 11-12
Prerequisites: Law I

Law Enforcement II provides the knowledge and skills necessary to prepare for a career in law enforcement. Students will understand ethical and legal responsibilities, patrol procedures, first responder roles, telecommunications, emergency equipment operations, and courtroom testimony.

LAW ENFORCEMENT II DUAL CREDIT
CJSA 1322 INTRODUCTION TO CRIMINAL JUSTICE (SPRING)

Credit: 1 for HS & 3 College Hours **Grade:** 11-12
Prerequisite: Law I and student must take TSI

Possible Book Costs required for Dual Credit through TVCC

Dual Credit Law Enforcement II provides the knowledge and skills necessary to prepare for a career in law enforcement. Students will understand ethical and legal responsibilities, patrol procedures, first responder roles, telecommunications, emergency equipment operations, and courtroom testimony.

FORENSIC SCIENCE

Credit: 1 **Grade:** 11-12
Prerequisites: Biology and Chemistry

This course satisfies both a high school science and CTE graduation requirement

Forensic Science is a course that introduces students to the application of science to connect a violation of law to a specific criminal, criminal act, or behavior and victim. Students will learn terminology and procedures related to the search and examination of physical evidence in criminal cases as they are performed in a typical crime laboratory. Using scientific methods, students will collect and analyze evidence such as fingerprints, bodily fluids, hairs, fibers, paint, glass, and cartridge cases. Students will also learn the history and the legal aspects as they relate to each discipline of forensic science.

EDUCATION AND TRAINING CLUSTER

PRINCIPLES OF EDUCATION AND TRAINING

Credit: 1 **Grade:** 9-12
Prerequisites: 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 AND DEVELOPMENT

Credit: 1 **Grade:** 10-12
Prerequisites: Principles of Education and 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. The course covers material that is generally taught in a postsecondary, one-semester introductory course in developmental psychology or human development.

INSTRUCTIONAL PRACTICES

Credit: 2 **Grade:** 11-12
Prerequisites: Principles of Education and Training

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

Credit: 2 **Grade:** 11-12
Prerequisites: Instructional Practices

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

HEALTH SCIENCE CAREER

PRINCIPLES OF HEALTH SCIENCE

Credit: 1 **Grade:** 9-10
Prerequisites: None

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

HEALTH SCIENCE THEORY

Credit: 1 **Grade:** 10-12
Prerequisites: 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.

ANATOMY AND PHYSIOLOGY

Credit: 1 **Grade:** 11-12
Prerequisites: Biology, Chemistry

This course satisfies both a high school science and CTE graduation requirement

The Anatomy and Physiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology will study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

PATHOPHYSIOLOGY

Credit: 1 **Grade:** 11-12
Prerequisites: Biology, Chemistry, Principles of Health Science

This course satisfies both a high school science and CTE graduation requirement

The Pathophysiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Pathophysiology will study disease processes and how humans are affected. Emphasis is placed on prevention and treatment of disease. Students will differentiate between normal and abnormal physiology.

PHARMACOLOGY

Credit: 1 **Grade:** 11-12
Prerequisites: Biology, Chemistry, Principles of Health Science

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.

PRACTICUM IN HEALTH SCIENCE

Credit: 2 **Grade:** 11-12
Prerequisites: Health Science Theory and Biology

APPLICATION / INTERVIEW PROCESS REQUIRED

The Practicum in Health Science course is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

DUAL CREDIT ANATOMY & PHYSIOLOGY
BIOLOGY 2401 ANATOMY & PHYSIOLOGY 1

Credit: .5 for HS & 3 College Hours **Grade:** 11-12
Prerequisites: Biology, Chemistry and students must pass TSI requirements in Reading and Writing.

Recommended Prerequisite: A course from the Health Science Career Cluster

TVCC Dual Credit fee and book cost required

In Dual Credit Anatomy and Physiology, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

DUAL CREDIT ANATOMY & PHYSIOLOGY
BIOLOGY 2402 ANATOMY & PHYSIOLOGY 2

Credit: .5 for HS & 3 College Hours **Grade:** 11-12
Prerequisites: Biology, Chemistry and students must pass TSI requirements in Reading and Writing.

Recommended Prerequisite: A course from the Health Science Career Cluster

TVCC Dual Credit fee and book cost required

In Anatomy and Physiology, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

SCIENCE, TECHNOLOGY, ENGINEERING AND MATH

PRINCIPLES OF APPLIED ENGINEERING

Credit: 1 **Grade:** 9-12
Prerequisites: None

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

ENGINEERING DESIGN AND PRESENTATION I

Credit: 1 **Grade:** 10-12
Prerequisites: Principles of Applied Engineering, Algebra I

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 PROBLEM SOLVING

Credit: 1 **Grade:** 11-12
Prerequisites: Engineering Design and Presentation I, Algebra 1, Geometry

This course satisfies both a high school science and CTE graduation requirement

The 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, structure, 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 or "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.

SCIENTIFIC RESEARCH AND DESIGN

Credit: 1 **Grade:** 11-12
Prerequisites: Principles of Applied Engineering, Biology, Chemistry, Physics

Scientific Research and Design 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 of 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

This course satisfies both a high school science and CTE graduation requirement

ROBOTICS I

Credit: 1 **Grade:** 12
Prerequisites: Principles of Applied Engineering

In Robotics I, students will transfer academic skills to component designs in a project-based environment through implementation of the design process. Students will build prototypes or use simulation software to test their designs. Additionally, students will explore career opportunities, employer expectations, and educational needs in the robotic and automation industry.

INFORMATION TECHNOLOGY

PRINCIPLES OF INFORMATION TECHNOLOGY

Credit: 1 **Grade:** 9-12
Prerequisites: None

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

COMPUTER MAINTENANCE

Credit: 1 **Grade:** 10-12
Prerequisites: BIM, DIM or Principles of Information Technology

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

COMPUTER TECHNICIAN PRACTICUM

Credit: 2 **Grade:** 10-12
Prerequisites: Computer Maintenance

In the Computer Technician Practicum, students will gain knowledge and skills in the area of computer technologies, including advanced knowledge of electrical and electronic theory, computer principles, and components related to the installation, diagnosis, service, and repair of computer-based technology systems. Students will reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Proper use of analytical skills and application of IT concepts and standards are essential to prepare students for success in a technology-driven society. Critical thinking, IT experience, and product development may be conducted in a classroom setting with an instructor, with an industry mentor, or both.

PRACTICUM IN INFORMATION TECHNOLOGY

Credit: 2 **Grade:** 10-12
Prerequisites: Principles of Information Technology**,** Computer Maintenance, Computer Technician Practicum

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.

FOUNDATIONS OF CYBERSECURITY

Credit: 1 **Grade:** 9-12
Prerequisites: BIM, DIM or Principles of Information Technology

In the Foundations of Cybersecurity course, students will develop the knowledge and skills needed to explore fundamental concepts related to the ethics, laws, and operations of cybersecurity. Students will examine trends and operations of cyberattacks, threats, and vulnerabilities. Students will review and explore security policies designed to mitigate risks. The skills obtained in this course prepare students for additional study in cybersecurity. A variety of courses are available to students interested in this field. Foundations of Cybersecurity may serve as an introductory course in this field of study.

DIGITAL FORENSICS

Credit: 1 **Grade:** 9-12
Prerequisites: Foundations of Cybersecurity

Digital Forensics will foster students' creativity and innovation by presenting opportunities to investigate simulations and case studies of crimes, reconstructing computer security incidents, troubleshooting operational problems, and recovering from accidental system damage. Students will collaborate to develop forensic techniques to assist with computer security incident response. Students will learn methods to identify, collect, examine, and analyze data while preserving the integrity of the information and maintaining a strict chain of custody for data. Students will solve problems as they study the application of science to the law. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will gain an understanding of computing and networking systems that transmit or store electronic data.

PRACTICUM IN INFORMATION TECHNOLOGY

Credit: 2 **Grade:** 10-12
Prerequisites: Principles of Information Technology**,** Computer Maintenance, Computer Technician Practicum

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.

COMPUTER SCIENCE I

Credit: 1 **Grade:** 10-12
Prerequisites: Algebra I

Computer Science I will foster students' creativity and innovation by presenting opportunities to design, implement, and present meaningful programs through a variety of media. Students will collaborate with one another, their instructor, and various electronic communities to solve the problems presented throughout the course. Through data analysis, students will identify task requirements, plan search strategies, and use computer science concepts to access, analyze, and evaluate information needed to solve problems. By using computer science knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will gain an understanding of the principles of computer science through the study of technology operations, systems, and concepts.

COMPUTER SCIENCE II

Credit: 1 **Grade:** 11-12
Prerequisites: Computer Science I

Computer Science II will foster students' creativity and innovation by presenting opportunities to design, implement, and present meaningful programs through a variety of media. Students will collaborate with one another, their instructor, and various electronic communities to solve the problems presented throughout the course. Through data analysis, students will identify task requirements, plan search strategies, and use computer science concepts to access, analyze, and evaluate information needed to solve problems. By using computer science knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will gain an understanding of computer science through the study of technology operations, systems, and concepts.

COMPUTER SCIENCE III

Credit: 1 **Grade:** 12
Prerequisites: Computer Science II

Computer Science III will foster students' creativity and innovation by presenting opportunities to design, implement, and present meaningful programs through a variety of media. Students will collaborate with one another, their instructor, and various electronic communities to solve the problems presented throughout the course. Through data analysis, students will identify task requirements, plan search strategies, and use computer science concepts to access, analyze, and evaluate information needed to solve problems. By using computer science knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will gain an understanding of advanced computer science data structures through the study of technology operations, systems, and concepts.