

COURSE DESCRIPTION BOOKLET

California Area High School

2019-2020



Fly Into Your Future

Curriculum

The California Area High School curriculum offers a variety of courses to meet student needs in preparing for college, technical school, military, and career choices. Graduation requirements provide California students with solid background in the core areas along with an intensive study in several critical subjects in order to more thoroughly prepare each student for the future.

Graduation Requirements for High School Students

To graduate from California Area High School, a student must accumulate at least 26 credits over his/her high school career. It is the student's responsibility to enroll in the courses necessary for graduation. A listing of the required courses follows:

English.....	4 credits
Math.....	3 credits
Science.....	3 credits
Social Science.....	3 credits
Health.....	½ credit
Family & Consumer Science.....	½ credit
Physical Education.....	2 credits
Electives.....	10 credits
	26 (total)

English and physical education are required to be taken each year of high school (Grades 9 thru 12).

Credit Determination

Course credit is given as official acknowledgment that a student has successfully completed the course (60% or better) and has met attendance policy requirements. The credit value assigned to each course is determined by the number of meetings and the length of time the course is in session. In each case, the student must receive a passing grade and meet attendance requirements to receive the credit value for the course.

Eighth Grade Scheduling Process

Eighth grade students will be scheduled based on a collaborative effort which includes the eighth grade teaching team, middle school guidance counselor, high school guidance counselor and parent/guardian.

Pre-schedule recommendations will be sent home to the parent/guardian for review and approval. For specific questions regarding the scheduling process, please call the high school.

The Scheduling Process

The guidance counselor will help students pre-register for classes when she visits the classroom during the second semester of the school year. Students are encouraged to discuss their course selections with the guidance counselor and/or instructors before making final decisions. Pre-schedule recommendations will be sent home to the parent/guardian for review and approval. Students who plan to pursue a college degree or go directly into the work force should check with the school counselor to determine the best courses to take for their field of interest. For specific questions regarding the scheduling process, please call the high school.

Changes of Schedule

Parents will have an opportunity to review their child's tentative schedule once it is completed. A deadline for schedule changes will be announced. After the deadline has passed, changes will be granted in cases where a child needs a course to graduate. It is strongly recommended that parents review their child's tentative schedule closely and react within the deadline if they have concerns. Students have two weeks after the beginning of the school year to make schedule changes. The provision may be waived by the Principal due to extenuating circumstances.

Course Prerequisite

Students must check to see if a course carries a prerequisite. If so, students must maintain a recommended grade average in the prerequisite course in order to register for the upper level course. Exceptions to this rule must be made through the Principal's Office.

Credit Requirement for Promotion

The following listing denotes the minimum credits that must be attained to gain academic promotion to the next grade level at the high school. It is school practice to move students each year into the next grade level for homeroom purposes. This procedure does not reflect the academic standing of the student. Students are retained when they cannot obtain the credit needed to graduate with their class.

9th to 10th	6 ½ credits
10th to 11th	13 credits
11th to 12th	19 ½ credits
Graduation	26 credits

Graduation Honors

To be considered for honors such as valedictorian or salutatorian, a student must attain at least seven credits each year of his/her high school career at the high school campus. A student may not have dropped a class with a failing grade (WF). In case of a tie in grade point average, the student completing more credits will receive the higher class standing.

Valedictorian Requirements

As per California Area School District Policy No. 214: Class Rank, valedictorian selection will be based on a non-weighted grading system. All students with a 4.0 GPA who have met the requirements of the "Honors Program," will be valedictorians. If there are no 4.0 GPA's the valedictorian will be the Honors Program student(s) with the highest GPA in the class.

When scheduling for 9th grade, students will declare a program which they plan to pursue for the next four years. The available programs are:

Honors Program – for students planning on attending college.

Career / Technical Program – for students planning on attending the CTC School and pursuing a related career.

Academic Program –for students planning on pursuing a career that may require college or technical school preparation.

The valedictorian must be a member of the **Honors Program** and must meet the following requirements for that program:

- 4 credits of English to include Honors 9, Honors 10, Honors 11, and Honors English 12
- 4 credits of Math. Calculus and Statistics are recommended but the minimum of Algebra III/Trig must be met.
- 4 credits of Science to include Biology, Chemistry, and Physics and a minimum of one advanced science course.
- 4 credits of Social Studies with a minimum of College History I, II, Psychology or Sociology
- 3 credits of a Foreign Language
- 2 credits of Physical Education
- ½ credit of Health
- ½ credit of Family and Consumer Science
- 4 credits of Electives

*NOTE: At least 4 College-In-The-High School / Dual Enrollment courses must be included.

To be considered for valedictorian the student must have attended California Area High School for at least the 11th and 12th grade years.

Students who take advanced courses (which are not available at CAHS) at an approved college or university, and have taken all the required courses at CAHS, are eligible for valedictorian status. College courses may only be substituted for required high school courses with prior permission of the principal. All college courses require prior registration with the Guidance Office. All college grades will be included in GPA calculation and must be provided to the Guidance Office on an official college document within one week of receiving the grade. Failure to do so will result in an “F” being recorded on your high school transcript.

The valedictorian(s) will be recognized at graduation with a medallion. The valedictorian(s) will be expected to speak briefly at the graduation ceremony. If there should be more than three valedictorians they will not speak at graduation. Instead, their speeches will be printed, along with their pictures, in the commencement program.

The salutatorian will be the student(s) in the **Honors Program** with the next highest GPA in the senior class. This student(s) will also receive a medallion at the graduation ceremony.

The top ranked student(s) in the **Career / Technical Program** and the **Academic Program** will also be recognized at the graduation ceremony receiving “Honor Graduate” medallions.

All students, regardless of selected program of study, will continue to be recognized for honors level GPA’s with the appropriate colored cords.

Graduation Ceremony

Students must have completed at least 26 credits and all required courses in order to participate in graduation services. Any obligations to the school or disciplinary infractions occurring at the time of graduation will delay awarding of the diploma and/or participation in graduation ceremony.

Summer School

Summer school is not an option for attaining credit/s for graduation.

Recommended College Preparatory and NCAA Eligibility Program

This program of studies is designed to prepare students for a four (4) year post-secondary education at an academic college or university. A variety of electives may be added to the requirements below to enable the student to concentrate in a specific area of interest. Students are advised to verify the requirements for freshman eligibility at the post-secondary level. For more information: www.ncaa.org

Minimum Program Requirements:

English.....	4 credits
Math (college prep group).....	4 credits
Science (college prep group).....	4 credits
Social Science.....	4 credits
Foreign Language.....	2-4 credits
Family & Consumer Science.....	½ credit
Health.....	½ credit
Physical Education	2 credits
Electives.....	4 credits

COURSE LISTING

Language Arts

<u>Course</u>	<u>Credit</u>	<u>Grade</u>
English 9	1	9
Honors English 9*	1	9
English 10	1	10
Honors English 10*	1	10
English 11	1	11
Technical English 11	1	11
Honors English 11*	1	11
English 12	1	12
Honors English 12*	1	12
Cinema and Literature	½	11-12
Science Fiction and Fantasy	½	11-12
Sports Literature	½	11-12
SAT Prep	½	10-12
College / Career Planning	½	10-12

Mathematics

<u>Course</u>	<u>Credit</u>	<u>Grade</u>
Algebra I-A	1	9-10
Algebra I-B	1	9-10
Algebra I	1	9-12
Algebra II	1	10-12
Algebra III/Trigonometry*	1	11-12
Geometry	1	9-12
Calculus Mathematics**	1	12
Statistics**	1	12
Consumer Math	1	11-12
Principles of Algebra / Geometry	1	11-12

Science

<u>Course</u>	<u>Credit</u>	<u>Grade</u>
Principles of Science	1	9
Principles of Biology	1	9-12
Principles of Chemistry	1	10-12
Principles of Physics	1	11-12
Biology	1	9-12
Biology II**	1	11-12
Human Biology	1	11-12
Chemistry	1	10-12
Chemistry II*	1	11-12
Physics / Intro to Physics**	1	11-12
Physics II*	1	12
Contemporary Issues in Science	½	11-12
Basic Astronomy	½	11-12

Social Science

<u>Course</u>	<u>Credit</u>	<u>Grade</u>
United States/PA History I	1	9-12
United States/PA History II	1	10
World History	1	11
College History I (U.S. to 1877) **	1	11-12

College History II (U.S. since 1877) **	1	11-12
Intro to Psychology*	1	12
Intro to Sociology**	1	11-12
American Government	½ / 1	12
Street Law	½ / 1	11-12
Economics in Sports & Entertainment	½ / 1	11-12

Technology Education

<u>Course</u>	<u>Credit</u>	<u>Grade</u>
Transportation Technology	½	9-12
Construction Technology	½	9 -12
Intro to Drafting and Design	1	9-12
Computer Aided Drafting and Design	1	10-12
3-Dimensional Design and Modeling	1	11-12
Intro to Robotics and Automation	1	9-12
Advanced Robotics and Automation	1	10-12
Graphic Design	½	9-12
Digital Communications	½	10-12
Energy Technology	1	11-12
Principles of Invention and Innovation	1	10-12
STEM Based Research, Design & Development	1	11-12

Foreign Languages

<u>Course</u>	<u>Credit</u>	<u>Grade</u>
Spanish I	1	9-12
Spanish II	1	10-12
Spanish III	1	11-12
Spanish IV / Elementary Spanish II**	1	12
German I	1	9-12
German II	1	10-12
German III	1	11-12
German IV	1	12

Wellness/Physical Education

<u>Course</u>	<u>Credit</u>	<u>Grade</u>
Physical Education I	½	9-10
Physical Education II	½	11-12
Health	½	11-12
Fitness	½	10-12
Intro to Physical Conditioning**	1	12

Fine/Practical Arts

<u>Course</u>	<u>Credit</u>	<u>Grade</u>
Art I	½	9-12
Art II	½	10-12
Art III	1	11-12
Art IV**	1	12
High School Band	1	9-12
Chorus	1	9-12
Drama I	½	10-12
Intro to Multimedia Production	½ / 1	9 - 12
Advanced Multimedia Production	½ / 1	11-12

Family & Consumer Sciences

<u>Course</u>	<u>Credit</u>	<u>Grade</u>
Creative Living	½ / 1	10-12
Family & Consumer Sciences	½	9
Foods & Nutrition	½ / 1	11-12

Mon Valley Career and Technology Center

<u>Programs of Study:</u>	<u>Periods/wk</u>	<u>Credit</u>	<u>Grade</u>
<u>Advanced Manufacturing Careers</u>			
Precision Metal/Welding	15	3	10-12
<u>Automotive Careers</u>			
Automotive Collision Repair	15	3	10-12
Automotive Technology	15	3	10-12
<u>Construction Careers</u>			
Carpentry	15	3	10-12
Construction Technology	15	3	10-12
Electrical Power	15	3	10-12
<u>Computer Technology Careers</u>			
Computer Engineering Technology	15	3	10-12
Multimedia Design Technology	15	3	10-12
<u>Food Services Careers</u>			
Culinary Arts	15	3	10-12
<u>Health/Human Services Careers</u>			
Cosmetology	15	3	10-12
Health Occupations	15	3	10-12

College in the High School

Physics (Intro to Physics)
 College History I of the U.S. to 1877
 College History II of the U.S Since 1877
 Calculus Mathematics
 Statistics
 Spanish IV (Elementary Spanish II)
 Intro to Physical Conditioning
 Biology II
 Sociology

*Indicates honors course

**Indicates College-in-the-High School Course

Restricted Courses

Applied Communications
 Study Skills
 Vo-Tech/Work Co-op
 Technical Math
 Independent Study
 Community Service
 Peer Mentoring
 English as a Second Language
 Academic Strategies

College in the High School



Saint Francis University
Loretto, PA 15940-0600
1-800-457-6300 or 814-472-3012
www.francis.edu

Courses Offered

The *College in the High School* program is a partnership between California Area High School and Saint Francis University. High school students who participate in the *College in the High School* program can obtain Saint Francis University credit for select upper-level high school courses. The courses taught through this program will contain the course content of the equivalent course(s) taught at Saint Francis University and will be taught by approved high school teachers in the regular classroom.

Saint Francis University courses currently being offered at California Area High School include:

- Physics (Intro to Physics)
- College History I of the U.S. to 1877
- College History II of the U.S Since 1877
- Calculus Mathematics
- Statistics
- Spanish IV (Elementary Spanish II)
- Intro to Physical Conditioning
- Sociology (approved by St. Francis 1/12/16)
- Biology II

Admission: Students wishing to take a *College in the High School* course must complete a Saint Francis University Continuing Education application. Admission into *College in the High School* does not constitute acceptance into Saint Francis University.

Registration: Staff from the Office of Continuing Education will visit participating high schools for registration purposes. Students will submit the application form at this time along with a \$10 non-returnable registration fee and the tuition for the course.

Grades: The high school teacher, who will hold an adjunct faculty appointment from SFU will assign grades for students taking a *College in the High School* course.

Withdrawals: There will be no financial reimbursement if a student decides to withdraw from a course. Students approved to withdraw from a *College in the High School* course will be given a “W” (withdrew) grade.

Benefits of the Program

- Quality Education: *College in the High School* courses, as well as the approved instructors, meet the standards of the appropriate academic department of Saint Francis University.
- Early Start on College: Students who later decide to attend Saint Francis University will enter with advanced standing and earned credits on their academic record.

- Transfer of Credits: Many students registering for courses through Saint Francis University may eventually wish to transfer these credits elsewhere. Although many colleges and universities will recognize these transfer credits, it is not guaranteed that all colleges or institutions of higher learning will accept them. Whether or not a college accepts transfer credits depends on their policy and the major that the student has chosen. Typically, students must have a “C” or better for any credits to transfer and must also request a transcript of their credits earned.
- Transcript Request: Contact the Registrar’s Office at Saint Francis University 814-472-3009
- Contacts: Saint Francis University College in the High School: Continuing Education Program Specialist and College in the High School Coordinator 814-472-3012

English/Language Arts

English 9

English 9 is an integrated program of general studies in writing, literature, grammar, usage, and mechanics. Primary attention is focused on writing as a process with the objective of mastering composition of the paragraph and short essay. Particular emphasis is placed on informative, narrative, and persuasive writing. Students will experience a sampling of the world’s great literature through the study of the short story, novel, essay, biography, poetry, and drama. Work in vocabulary, speaking, and listening will be included. Introductory research techniques will be combined with library studies. Finally, each student will select at least four books to read and review independently as an introduction to critical analysis.

Honors English 9

Honors English 9 is a more intensive study of writing, literature, grammar, usage, and mechanics. The course is designed for those who are either college-bound or preparing for language-dependent careers. Primary attention is focused on writing as a process with objectives of mastering the composition of the paragraph and the five-paragraph essay in the areas of informative, narrative, and persuasive writing. Students will experience a sampling of the world’s great literature through the study of the short story, novel, essay, biography, poetry, and drama. As this course will cover 50% - 60% more literature than English 9, it is recommended only for students with strong reading abilities and desires. Work in vocabulary, speaking, and listening will be included. Introductory research techniques will be combined with library studies. Finally, each student will select at least eight books to read and review independently as an introduction to critical analysis. **Prerequisites include the following: no less than a B average in eighth grade English and the recommendation of the student’s eighth grade English teacher.

English 10

The English course for grade 10 is a continuation of the integrated program of the study of literature, composition, vocabulary, grammar, usage, and mechanics. Students will participate in a multitude of various forms of writing, and the writing process of prewriting, writing, and revising will be reinforced. Students will also engage in test taking strategies and techniques throughout the year in preparation for the Keystone, ACT, and SAT exams. In regard to literature, students will participate in reading short stories, plays, class novels, and a novel of their choosing. Students will engage in research. Students will also expand creative and critical thinking skills, as well as, further develop collaboration and presentation skills.

Honors English 10

Honors English 10 focuses on the theme of self-perception and awareness. The course strives to explore the concept of identity and self-perception vs. the viewpoint of outside

perspectives. The literary and dramatic works covered involve characters whose identities undergo growth and reshaping as a result of external and/or internal forces. Some of works include *A Tale of Two Cities*, *To Kill a Mockingbird*, and *Julius Caesar*. Students will also choose a novel of their own to explore and present to the class. In addition, students will engage in various short stories and poetry selections throughout the year. Students will participate in a multitude of various forms of writing to sharpen students' analytical and grammatical skills, and the writing process of prewriting, writing, and revising will be reinforced. Students will also engage in test taking strategies in preparation for the Keystone, ACT, and SAT exams. *It is important to note that as this is an honors course. It will move at a faster pace, explore concepts in further detail, and challenge students with a more complex range of assignments and discussion topics, which will require that students have extensive out-of-class work. Students will experience collegiate-level assignments and discussions in class*

****Prerequisites include the following: no less than a B average in ninth grade English and the recommendation of the student's ninth grade English teacher.**

English 11

English 11 is an integrated program of American literature, writing, language skills, research, and oral communication. Writing and language skills are refined. The writing component emphasizes the stages of the writing process as students develop expository (narrative and informational) and persuasive compositions. Students will research a topic by locating, evaluating, synthesizing, and citing applicable information in order to complete a documented research paper.

Technical English 11 -

Technical English 11 is designed to help students develop and refine interpersonal and career-related communication skills. Students will improve reading, writing, listening, and speaking skills through applied activities including gathering and using information in the workplace, communicating with co-workers, and presenting point of view. In addition, basic test taking strategies and concepts will be reviewed in order to boost reading comprehension abilities and prepare students for various future standardized tests, including the Keystone Exams, the ASVAB test, and the ACT/SAT Exams (if students choose to take them).

****Prerequisite: Teacher recommendation.**

Honors English 11

Honors English 11 is an accelerated and challenging course for college-bound students who have excelled in previous Honors English courses. Emphasis is placed on furthering an already strong background in writing and literature through study and critical analysis of American Literature. Students will engage in intensive reading, thorough discussions, and comprehensive writing. Students will engage in a multitude of various forms of writing, strengthening their organizational, analytical, and grammatical skills, as well as, enhancing their knowledge of the modes of discourse (expository, narrative and informational, imaginative, persuasive, argumentative, and descriptive). *It is important to note that as this is an honors course, it will move at a faster pace, explore concepts in further detail, and challenge students with a more complex range of assignments and discussion topics, which will require that students have more out-of-class work to complete than the Academic 11 English course. Students are expected to put forth extra effort to fully master the skills and concepts covered.*

****Only students who have completed Honors English 9 and/or 10 with no lower than a B average may elect this course.**

English 12

English 12 serves as the culmination of the four year program in the writing process. Students' writing skills are refined, and weaknesses in grammar and usage identified and

remedied. A survey of literature, with emphasis on English literature, serves as a basis for much writing and discussion including a research paper and oral reports.

Honors English 12

In this course students are expected to do college level work in literature and writing. Students will read and study classical works (both ancient and modern), will read at least six novels, and will write two research papers, as well as write weekly assignments. Prerequisites include the following: no lower than a B average in eleventh grade English and the recommendation of the student's eleventh grade English teacher.

Cinema and Literature

This class is designed so that students who are interested in classical works can view the work in the cinematic form. Classical works such as *Frankenstein*, *Lord of the Flies*, *Christmas Carol*, *Pride and Prejudice*, *Gulliver's Travels*, and *Fahrenheit 451* will be explored on the screen. Each movie will be accompanied with student study guides, vocabulary lists, thematic essay works, and discussion questions. The movie will replace the book version of the work; however, the content of the course will revolve around traditional literary concepts and thematic genres. All movies will be edited for classroom use so that no student is exposed to material that is not school appropriate. This course elective is best suited for grades eleven and twelve.

Science Fiction and Fantasy

This course's structure would allow students to examine the world of fantasy and science fiction by reading books in the designated genres. The books chosen will be school-appropriate and age-appropriate for high school students. The class content would involve examination of the books according to traditional standards involving the genre, plot, structure, and meaning of the content. Students would be directed to align their thinking to parallel the concepts of the core curriculum while examining works that have a significant interest to them. Twenty-first century students in high school are fascinated by science fiction and fantasy as is revealed in the types of movies, video games, television programs, and eBooks that they view. This course would promote learning while exploring books of student interest and fascination.

Sports Literature

Sports Literature allows students to explore the world of sports through the use of literature and other media. This course surveys and analyzes a variety of writing about sports through the use of novels, short stories, and non-fiction sports writing. Specifically, the course will examine various themes that arise in both fiction and non-fiction writing about American sports and American sports figures. Themes that will be explored include those such as glory, heroism, and triumphs of athletes as well as athletes' struggles, challenges, and downfalls. In addition to the readings, students will complete major projects focusing on literature, writing, and research within the world of sports. Students in this course are given the opportunity to expand upon their love and knowledge of sports while also increasing skills in collaboration, discourse, reading, and writing.

Mathematics

Algebra I- A

This course is a year-long course for students to begin their investigation into algebraic concepts. Part A is the first part of a two-year sequence of Algebra I, at the end of which a student will have mastered the topics of Algebra I. Topics in this course include: review of pre-algebra skills such as integers, fractions, decimals, greatest common factors and least common multiples; additionally they will learn the language and tools necessary to understand algebraic concepts. Areas of concentration will include statistics and probability, solving linear equations, polynomials, functions, patterns, and analyzing linear equations. With successful completion of this course students will move to Algebra I Part B.

Algebra I-B

This course is the second part of a two-year sequence following Algebra I-A. This course continues to investigate algebraic concepts including: an overview of Algebra I Part A, solving systems of equations and inequalities, polynomials, factorings radical expressions, rational expressions and equations. **The Keystone Algebra I Exam is to be taken upon the completion of this course.

Algebra I

This course develops the comprehension of algebraic structure. Students will investigate operations with real numbers and expressions; linear equations and inequalities; quadratic equations; functions; coordinate geometry; and data analysis. Course will be designed to incorporate proficiency development in order to assist students in acquiring the skills necessary to pass proficiency examinations. ** Students will take the Keystone Algebra I Exam upon completion of this course.

Principles of Algebra and Geometry

The Principles of Algebra and Geometry course combines the remediation and test preparation for the Keystone Algebra I exam with introductory geometry topics. This course includes the study of formulas, algebraic expressions, linear and quadratic equations and inequalities, the rectangular coordinate system, area, perimeter, volume of geometric figures, and properties of triangles and circles.

Geometry

This course is to formalize and extend students' geometric experiences and explore more complex geometric situations and deepen their explanations of geometric relationships through inductive and deductive reasoning. The students will investigate properties of polygons and polyhedral; congruence, similarity and proofs; coordinate geometry and right triangles, properties of circles, spheres and cylinders; and the measurements of both two and three-dimensional figures. *Course can be taken upon successful completion of Algebra I or Algebra I A / B. A "C" average should be maintained in these courses, or with teacher recommendation.

Algebra II

This course is designed to build on students' work with linear, quadratic, and exponential functions from Algebra I. Students will investigate patterns, relations, and functions; applications of functions; operations with complex numbers; non-linear expressions and equations; and data analysis. Students may be required to take Algebra I Keystone Exam while taking this course. *Successful completion of Algebra I and Geometry is required. A "C" average should be maintained in these courses, or with teacher recommendation.

Algebra III / Trigonometry

This course extends the concepts learned from Geometry and Algebra II and emphasizes the analysis of the graph. Topics in this course are diversified and relevant for those students who wish to continue on to the study of Calculus. This is a one-year course and will not be divided. *Students must have successfully completed Algebra I, Geometry, and Algebra II. A "B" average should be maintained in these courses, or with teacher recommendation.

Consumer Math

The Consumer Math course is only available to juniors and seniors. This course reinforces general math topics (such as arithmetic using rational numbers, measurement, ratio and proportion, and basic statistics) and applies these skills to consumer problems and situations. Applications typically include budgeting, taxation, credit, banking services, insurance, buying and selling products and services, home and/or car ownership and rental, managing personal income, and investment.

Calculus (College-in-the- High School)

This course develops a high degree of understanding in the analysis of abstract concepts and symbols. The students will investigate the study of limits, the derivative, differentials and the integral. An extensive study of differentiation and integration of algebraic, trigonometric, exponential and logarithmic functions will comprise the major part of this course. College credits may be earned with a grade of C or better with a fee applied. *The successful completion of all math courses through Algebra III/Trigonometry is required. A “B” average should be maintained in these courses, or with teacher recommendation.

Statistics (College -in-the-High School)

This course is designed for college bound students. In this course, students will extend their knowledge of descriptive statistics through hands-on experimentation and investigation. They will analyze existing data as well as data collected through a survey, observational study, or experiment. They will study inferential statistics and use probability, normal distributions, confidence intervals, linear regressions and analysis of variance to make conclusions. College credits may be earned with a grade of C or better with a fee applied. *The successful completion of all math courses through Algebra III/Trigonometry are required. A “B” average should be maintained in these courses, or with teacher recommendation.

Science

Principles of Science

This science course is for ninth graders at California Area High School. It incorporates two areas of scientific study: physical science, and earth/space science. The physical science component of the course includes a comprehensive introduction to motion, factors that affect motion, and forces that change motion. Concepts covered include velocity, acceleration, vectors, and energy. These are basic concepts necessary to understanding in any science. Students will examine these concepts using facilitated individualized science inquiry lab activities.

The earth/space science component allows for analysis of the earth, and the solar system using the concepts from physical science. Processes and features that cause change, as well as essential topics regarding composition and structure, will be stressed. Throughout the course, students will be expected to complete independent study, as well as cooperative learning experiences. The course is designed for “hands-on” science, as students complete laboratory investigations and projects throughout the course, as well as covering standards outside of Biology that are contained on the Biology & Algebra Keystone exam. (Pre-requisites – Science 8)

Principles of Biology

These courses provide students with a basic understanding of living things. Topics covered may include ecology and environmental problems such as overpopulation and pollution as well as cells, types of organisms, evolutionary behavior, and inheritance. Course will be designed to incorporate proficiency development in order to assist students in acquiring the skills necessary to pass proficiency examinations.

Biology

Biology courses are designed to provide information regarding the fundamental concepts of life and life processes. These courses include (but are not restricted to) such topics as cell structure and function, general plant and animal physiology, genetics, and taxonomy. The course will be designed to incorporate proficiency development in order to assist students in acquiring the skills necessary to pass proficiency examinations. **Students will take the Keystone Biology Exam upon completion of this course.

Biology II (College-in-the-High School)

This course is taken after biology and is designed for those students pursuing science related courses in college. The curriculum is consistent with an introductory college biology

course. The topics include biochemistry and cell organelles; energy transformation, organic macromolecules, DNA, human genetics, tissues and the muscular system. Additional topics may include the nervous system, digestive system and endocrine system.

Human Biology—Anatomy and Physiology

This is a rigorous course that is designed for those students going into a health or science related profession. The course covers the following: Cellular basis of life, tissues including epithelial, connective, muscle and nervous; The integumentary system, bones and skeletal tissue and a detailed study of the anatomy of the human skeleton. Additional topics include muscle anatomy and human genetics.

Principles of Chemistry

The Principles of Chemistry course is designed to introduce students to basic chemical theory and cover topics which include: the metric system, the factor label system, formula writing and nomenclature, the five basic types of chemical reactions, stoichiometry, atomic structure, chemical bonding, periodic trends, kinetic-molecular theory, gas laws, and problem solving. The course requirements will involve these topics in a less rigorous format than Chemistry I. Experiments will accompany the curriculum to introduce and reinforce laboratory skills with emphasis on measurement techniques, both quantitative and qualitative analysis. Open to grades 10 – 12. It is recommended students have successfully completed Algebra IA, Algebra IB, or Algebra I prior to taking this course.

Chemistry I

The chemistry course is designed for those students who plan on continuing their education after high school in a science-related field. It will introduce the student to basic chemical theory and cover topics which should include: the metric system, the factor label system, formula writing and nomenclature, the five basic types of chemical reactions, basic stoichiometry, atomic structure, chemical bonding, periodic trends, kinetic-molecular theory, gas laws, and problem solving involving these topics. Selected experiments will accompany these topics to both introduce and reinforce laboratory skills with emphasis on measurement techniques, and both quantitative and qualitative analysis. The weekly lab period is scheduled by the instructor. **Open to sophomores, juniors, and seniors. Strongly recommended for students who have taken Algebra I and Biology I.

Chemistry II

This course is designed for those students who plan to enter a chemistry related field of study after high school. Chemistry II will cover organic chemistry, (with emphasis on nomenclature and reactions), solution chemistry, acid-base concepts, oxidation-reduction reactions, reaction rates, stoichiometry, chemical equilibrium and nuclear chemistry. Laboratory emphasis will be on organic synthesis, analytical methods, and the perfections of selected laboratory techniques.

Principles of Physics

Principles of Physics is a course designed to prepare students more effectively for technical careers. Technicians must understand the mechanical, fluid, electrical, and thermal principles on which modern equipment operates. The course is divided into the following 7 units: force, work, rate, resistance, energy, power, and force transformers. These units provide an understanding of the principles of technology and the mathematics associated with them. This course is for students planning technical careers. **Recommended for students grades 10-12.

Physics (College-in-the-High School)

Physics is a good introductory course for college bound students. Topics covered include: scientific mathematics including scientific notation, significant figures, and trigonometric functions used in problem solving, forces, kinematics, dynamics, conservation laws, work, energy, sound and light waves, electric circuits, electromagnetism, radioactivity, and atomic and nuclear physics. Lab experiments will be conducted. College credits may be earned with a grade of C or better with a fee. **Recommended for juniors and seniors who have completed Algebra I, II, and Algebra III/Trigonometry.

Physics II

Physics II is an advanced course for college bound students who plan to enter a STEM related program in college and are presently taking Calculus. Topics covered include: scientific mathematics including scientific notation, significant figures, and trigonometric functions used in problem solving, forces, kinematics, dynamics, conservation laws, work, energy, sound and light waves, electric circuits, electromagnetism, radioactivity, atomic and nuclear physics, and modern physics. Coordination with the present Calculus curriculum will also determine the applications covered. The focus on this course will be in applying the principles of Calculus in solving physics problems. (Pre-requisites – Physics and concurrent enrollment in Calculus)

Basic Astronomy

This course is a general introduction to astronomy, with emphasis on our solar system and other planetary systems. Topics (chosen by instructor) may include historical astronomy, the sun, the surfaces, interiors, and atmospheres of the planets, comets, asteroids, and meteor impacts. (Pre-requisites are Algebra and Geometry)

Contemporary Issues in Science

This course is for juniors and seniors who will acquire the knowledge and skills to gather, analyze and apply information and ideas from current issues in science. Students will also acquire the knowledge and skills to communicate effectively within and beyond the classroom.

This course will cover current issues in science that effect people all over the world. Students will read articles in various magazines, newspapers, student publications, and other electronic media. They will answer questions on these articles and use them as a basis for discussion. They will also view videos on news programs and evaluate them. Grammar, logic, and rhetoric will be essential in succeeding in this course. Occasionally debates on certain current issues will occur as these stories surface in the news media. Effective communication skills will be addressed during each phase of this course, as well as proper questioning techniques.

Social Science / History

United States/PA History I

Early U.S. History courses examine the history of the United States from the colonial period to the Civil War or Reconstruction era (some courses end after this period). Some courses include American history before European settlement, while others may begin at the formation of the new nation. This course typically includes a historical overview of political, military, scientific, and social developments.

United States/PA History II

This course examines the history of the United States from the first World War era to contemporary times (1914 to the present) in both United States and Pennsylvania History. This course includes a historical review of political, military, scientific, and social developments. ** Recommended to have taken U.S. / PA History I.

World History

This course examines World History from the Byzantine Empire to the Industrial Revolution while examining political, economic, social, religious, military, scientific, and cultural developments. World History—Overview courses may include geographical studies, but often these components are not as explicitly taught as geography.

College History of the U.S. to 1877 (College-in-the-High School)

This course examines the history of the United States from the beginning of world history to the Civil War/Reconstruction era (Beginnings to 1877) in both United States and Pennsylvania History. This course includes a historical review of political, military, scientific, and social developments. Extensive reading and writing is required throughout the course. College credits may be earned with a grade of C or better and a fee is applied. **Recommended for juniors and seniors who have maintained a “C” or better in previous history classes.

College History of the U.S. Since 1877 (College-in-the-High School)

This challenging course examines the history of the United States from the post-Reconstruction era to contemporary times (1877 to the present) in both United States and Pennsylvania History. This course includes a historical review of political, military, scientific, and social developments. Extensive reading and writing is required throughout the course. College credits may be earned with a grade of C or better and a fee is applied. ** Recommended for juniors and seniors who have maintained a “C” or better in previous history classes. 1877 – Present.

Intro to Psychology

The goal of this class is to create active intellectual and emotional involvement by the student, in the study of human psychology. The human brain is studied from a functional and physiological standpoint. How people learn, experience emotions, and gain motivation are studied. Issues of heredity versus environmental factors in human development are covered as well as different theories of human personality. Ways to manage conflict and stress are studied, and different types of mental disorders are examined. These and other topics will help students understand the field of psychology. Psychology courses introduce students to the study of individual human behavior. Course content typically includes (but is not limited to) an overview of the field of psychology, topics in human growth and development, personality and behavior, and abnormal psychology. . **Recommended for seniors.

American Government

Seniors may take this elective course which covers the Foundations of American Government from the national, state, and local levels. The Executive, Legislative, and Judicial branches of government will be discussed along with public policies and services provided. Political parties, citizenship, and civil liberties will be incorporated into the overall coverage of the course. ** Recommended for seniors.

Intro to Sociology (College-In-The-High School)

This course focuses on three conceptual areas, culture, social structure, and population/ecology. Also, many theoretical frameworks: conflict, functional, and symbolic interaction to specific theories such as political process theory in the study of social movement, exchange theory in the study of social interaction, and labeling theory in the study of deviance.

Sociology courses introduce students to the study of human behavior in society. These courses provide an overview of sociology, generally including (but not limited to) topics such as social institutions and norms, socialization and social change, and the relationships among individuals and groups in society. Extensive reading and writing is required throughout the course. College credits may be earned with a grade of C or better and a fee is applied. ** Recommended for juniors and seniors who have maintained a “C” or better in previous history classes.

Economics in Sports and Entertainment

This course is designed to study the application of economics and marketing principles as related to the sports and entertainment industry. Instructional areas will include: History /orientation to the sports and entertainment industry, provide students with a thorough understanding of the principles of economics that apply to the functions of individual decision makers (both consumers and producers), emphasizing the study of national income and price determination. Focus will be on developing students' familiarity with economic performance measures, economic growth, and international economics. Classroom instruction will be reinforced through the use of outside lectures, case studies, current periodicals, computer simulations, projects, and lecture/discussions.

Street Law

Street Law is a social studies elective that serves as an introductory course to law and legal systems in the United States. The course objectives will include broad and specific legal topics to give students a better understanding of law and how it affects real life. The course will use case studies, individual research, group discussion / debate, guest speakers and mock trials throughout the course in order to reach our goal. Dueling opinions and lively debate should be the norm in this course making the class fun, enriching and meaningful. Units of study to include: Intro to law, Constitutional Law, Criminal Law, Criminal Justice Process, and Civil Law.

Family and Consumer Sciences

Family & Consumer Sciences

This course is required for graduation and supports the PA Academic Standards for Financial and Resource Management, Balancing Family Work and Community Responsibility, Food Science and Nutrition, and Child Development. It is designed to help students develop essential life skills. Topics include personal development and responsibility, goals, resources, money management and consumer skills. Students will also study food sanitation, nutrition, cooking techniques, and child development.

Creative Living

This course was designed for students who plan to enter a career in hospitality, culinary arts, food service, interior design, or child care. It supports the PA Academic Standards for Family & Consumer Sciences under the categories of Balancing Family, Work, and Community Responsibility, Food Science and Nutrition, and Child Development. Topics include housing and the consumer, interior design, parenthood, child literacy, and food preparation. Under the topic of food preparation, students will receive instruction on fruits, vegetables, grain products, dairy foods, eggs, meat and poultry. Students will also discover the art of baking through topics covered on breads, cakes, cookies, and pies. It is offered to students in grades 9-12 and may be taken simultaneously with Family & Consumer Sciences and / or Foods & Nutrition.

Foods & Nutrition

This course is designed for students who are interested in food and nutrition, as well as those who plan to enter a career in hospitality, sports wellness/nutrition, dietetics, culinary arts, health, or food service. It supports the PA Academic Standards for Family & Consumer Sciences under the category of Food Science and Nutrition. Topics covered include health challenges, life-span nutrition, weight management, food science and technology, food preparation, and global foods exploration.

****Successful completion of Family & Consumer Sciences course is required.****

Technology Education

Transportation Technology

This class will focus on the four environments of transportation (land, air, water, and space). Students will complete various hands-on activities to study transportation systems. Some of the activities will include CO2 cars, fixed wing aircrafts, model rockets, mousetrap powered vehicles, Styrofoam boat hulls, and others.

Construction Technology

Construction Technology is a comprehensive course which provides students with basic knowledge and skills required for construction of commercial, residential, and institutional structures. These courses provide information (typically including career opportunities and training requirements) regarding construction-related occupations such as carpentry, cabinetmaking, bricklaying, electrical trades, plumbing, concrete masonry, and so on. Students engage in activities such as reading blueprints, preparing building sites, starting foundations, erecting structures, installing utilities, finishing surfaces, and providing maintenance.

Energy Technology

Energy Technology is an overall introduction to energy issues as they relate to generation, delivery, conversion and efficiency. Topics include energy definitions, energy measurement; efficiencies of both new and established energy generation and conversion methods; electricity generation by fossil fuels, nuclear, solar, wind and hydro-power. Other topics include space heating and cooling by traditional methods vs. alternative ones, transportation energy in automobiles, mass transit and freight, and energy considerations in the oil and gas industry.

Graphic Design

Students will learn how to use software to manipulate photographs. Students will use Adobe Photoshop and other free software as well as web2.0 software. Students will also learn how to create various printed products.

Digital Communications

Digital Communications is a course which enables students to effectively communicate ideas and information through experiences dealing with electronic communication, video productions, photography, telecommunications, and computers. Additional topics covered in the course include information storage and retrieval.

Intro to Robotics & Automation

This is an entry level course designed to expose students to the development, design, and application of robotics and automated technological systems in our world. Students will study the components that make up a robot, as well as their application in various realms of industrial and societal use. Hands-on practice and instruction with VEX robotics kits will help students to understand the concepts of robot anatomy. Additionally, students will explore how programming is used to command and control robots by utilizing icon-based programming software. Students will transition to learning a programming language.

Prerequisites: Successful completion of (or currently enrolled in) Algebra 1 or Algebra IB. Open to Grades: 9th – 12th

Advanced Robotics & Automation

This course further enhances students' understanding of the fundamentals of robotics. In this course, students will design, build, test, and analyze their own robot based on a series of progressive challenges. Students will also reinforce and enhance their understanding of programming through more rigorous design activities. Students will be expected to identify and describe some of these challenges; as well as compare and contrast the effects that robotics has on our society, economy, and environment. There will be group activities as well as individual activities. Students will also learn programming languages using self-paced tutorials. A "C" average or higher in Intro to Robotics and Automation is recommended.

Introduction To Drafting & Design

This is an introductory level course in mechanical drafting. Students will study and practice the fundamentals skills and content knowledge of drafting. Students will apply these skills in order to develop highly accurate technical drawings and blueprints. Activities will include hand drafting, as well as a brief introduction to Computer Aided Drafting and Design (CADD). This course is intended to provide students with a basic working knowledge of the role of drafting in engineering and design, and to provide them with foundational skills which can be further refined in subsequent course offerings.

Computer-Aided Drafting & Design

This course builds on the content knowledge and skills covered in “Introduction to Drafting & Design”. Students will further enhance their drafting skills through instruction and hands-on experience with computer-aided drafting software. Students will utilize AutoCAD and AutoCAD Inventor software to create more advanced drawings and designs. Rigorous instruction in both two-dimensional and three-dimensional design styles will allow students the opportunity to gain practical, real-world knowledge and experience with tools and techniques that reflect current industry standards. A “C” average or higher in Intro to Drafting & Design is required.

3-Dimensional Design & Modeling

This course further enhances the drafting skills of the student who has successfully completed both previous drafting courses. Students will learn to create effective three-dimensional designs through the use of cutting-edge design software and 3D printing tools. This is a culminating course that accurately reflects the challenges and responsibilities encountered in today’s engineering and design careers. A “B” average or higher in CADD is recommended.

Principles of Invention & Innovation

This course explores the methods humans use to create new technologies and enhance existing ones. Students will learn how engineers and designers use the Engineering Design Process to shape and mold their creative ideas in to effective real-world solutions. A course of study in this class will include experience in engineering-based problem solving strategies, application of technological skills from previous tech classes, as well as guided instruction in reverse-engineering. A “C” average or higher in one of the following courses: Intro to Robotics & Automation, Transportation Tech, or Computer Aided Drafting & Design.

STEM-Based Research, Design, & Development

This is a capstone course in Technology Education. Students will begin the course by researching real-world problems in their school, community, or personal life that can be addressed and solved through the application of technology. They will select a viable problem to solve at the beginning of the course. Thereafter, the student, under the tutelage and guidance of the instructor, will research, analyze, and study the problem. Through the application of scientific, technological, engineering, and mathematical knowledge, the student will design, develop, test, analyze, and implement an effective solution to the problem. A “C” average or higher in the following courses: Chemistry, Algebra 1, and 2 Credits of Technology Education Courses. Open to Grades: 11th & 12th

Foreign Languages

Spanish I

Spanish I is open to all students in grades 9 through 12. In this course, there is an emphasis on listening, reading, writing and speaking. Opportunities for self-expression are abundant through standard dialogues, student-created situations and written paragraphs.

Students are motivated toward linguistic control of the fundamental elements of Spanish through basic vocabulary, common idiomatic expressions and grammar.

Spanish II

Although the approach is still verbal, the student begins a more formal study of the structure of the Spanish language. Greater effort is made to increase the functional vocabulary of the student. Grammatical analysis, written and verbal exercises and cultural material help to strengthen self-expression. **A “C” average in Spanish I is required.

Spanish III

Spanish III is open to all students who successfully complete Spanish II with a “B” average. The student is encouraged to use and reinforce the four skills (listening, speaking, reading and writing) while developing an up-to-date awareness of Hispanic culture. Functional vocabulary and grammar from Spanish I and II is reincorporated and expanded throughout the year. A more in-depth study of grammar is pursued and a strong emphasis is placed on real world applications. **A “B” average in Spanish II is required.

Spanish IV (College-in-the-High School)

Spanish IV is a continuation of Spanish III, covering those units not finished during the third year. Opportunities for self-expression abound, as the student is required more and more to think speak and listen primarily in the target language. A strong emphasis is placed on speaking fluidity and the ability to use the language in real-world situations. **A “B” average in Spanish III is required. College credit may be earned with a grade of “C” or better.

German I

German I is open to all students in grades 9 through 12. In this course there is emphasis on listening and speaking. Opportunities for self-expression are abundant through standard dialogues, student-created situations and written paragraphs. Students are motivated toward linguistic control of the fundamental elements of German through basic vocabulary, common idiomatic expressions and grammar. German videos, audio and resources will provide enrichment.

German II

Although the approach is still verbal, the student begins a more formal study of the structure of the German language. Greater effort is made to increase the functional vocabulary of the student. Grammatical analysis, written and oral exercises and cultural material help to strengthen self-expression. **A “C” average in German I is required.

German III

Each student progresses in the study of a foreign language proportionately to his/her innate ability and initiative; he/she should be taught to get thought and meaning without resorting to a conscious translation. He/she who learns to express his own ideas in a foreign language usually learns to express himself/herself clearly in his own native language. **A “B” average in German II is required.

German IV

German IV is a continuation of German III, covering those units not finished during the third year. Opportunities for self-expression abound as the student is required more and more to think in the target language as well as react using the four skills. College credits may be earned with a grade of C or better and a fee is applied. **A “B” average in German III is required.

Fine Practical Arts

Art I

Art I is the basic course in art at the senior high level of instruction. Students, as a general rule, vary greatly in the capabilities they bring with them to Art. The course, attempting to locate zones of preference, is broken down into five basic areas of artistic expression: drawing, painting, crafts, printmaking, and mixed media. In each of the above areas the student will be working with numerous media which will challenge their processes, dexterity skills, and develop techniques related to each media.

Art II

Those students selecting Art II should be self-motivated in order to work in-depth with a variety of materials. They are given the opportunity to pursue projects of their own design, as well as a balance of teacher initiated activities. The fields of design, sculpture, and three-dimensional art will be explored. Additional expressions of interest will include: drawing, painting, printmaking, calligraphy, and fabrics. **Only students who completed Art I may select this course.

Art III

Art III is a specialized course open to all students who have successfully completed Art I and Art II. Work within this course should reflect a sense of quality and competence in a medium selected by the student for further development. Work beyond the scheduled periods and outside the classroom would be expected of the students in order to fulfill in-depth experiences. Practical and experimental development will be stressed in the formal and technical aspects of each medium. Emphasis will be placed on the development of a portfolio showing specialized knowledge of each area. *Successful completion of Art I and Art II is required. **Only students who have completed Art II with a C or better may elect this course.

Art IV (College In The High School)

This course is open to students who have successfully completed Art III. Quality of work for the highly motivated student will be stressed and individualism encouraged. Concentration areas will include fine arts, commercial arts, and craft arts. Assessment of work by critique and discussions with each individual may provide the impetus for additional study, commercial application, or lifetime recreation. *Successful completion of Art I, Art II, and Art III is required. **Only students who have completed Art III with a C or better may elect this course.

Intro to Multimedia Production

This is a hands-on course that allows students to work with computers, video cameras, computerized lighting equipment, audio equipment, and editing equipment to produce video projects. The students will also be introduced to the basic skills necessary for operating the lighting and sound systems in the high school auditorium. Additionally, students will rehearse voice and diction skills necessary for good on-air presentation. Class size is dependent upon the amount of equipment available.

Advanced Multimedia Production

This class allows students to enhance and advance their skills by producing projects and serving as audio-visual support for auditorium, library, and gymnasium AV preparation. Students are expected to maintain and improve skills for handling different types of audio-visual equipment. Students must also improve on-air skills by conducting interviews. Students are expected to give of their time as needed to complete projects throughout the year, including after-school and/or evening videotaping assignments. Mature students with the dedication to meet demanding deadlines and with the ability to work collaboratively and independently will find success and satisfaction in the course.

**Prerequisite: A "B" average in Digital Communications, Intro to Multimedia Production, and/or teacher's recommendation.

High School Band

The concert bands are open to students in grades 9 through 12 who have had previous instrumental training or are willing and ambitious to learn an instrument. All new students must be approved by the band director. Students are required to perform at all school concerts, community concerts, and PMEA (Pennsylvania Music Educators Association) assessment festivals. Students will be playing and practicing a variety of instrumental music that covers different genres, eras, and styles.

This course can be taken for the duration of the academic year for full credit. A half credit is offered for either High School Band-Fall or High School Band-Spring.

Chorus

This course is designed to give vocal instruction and performance opportunities to beginning and advanced students. Previous vocal training is not required but some singing ability is necessary. A variety of music will be experienced including classical, pop, and jazz. Performances will be based upon the progress of the ensemble. A variety of voices are needed including both male and female. As with band, students may enroll in Chorus all four years they are in the high school.

Applied Music

Applied Music is for any Concert Band student who would like individual instruction and monitored practice. Time will focus on certain areas of music being developed in Concert Band and/or other areas such as effective practice techniques and/or solo music.

Music Theory I (College-In-The-High-School)

This course focuses on the basic of music theory including key signatures, clef reading, rhythm notation, music notation, cadence types and identification, ear training, music writing, and chord building. Also, historical integration of these music theory components will be discussed.

Students should understand that extensive projects will be required throughout the course. College credits may be earned with a grade of C or better. Recommended for students who have been in band, choir, or other musical endeavors to which they are confident in their music skill set.

Drama I

Drama I is a course in the basic techniques of modern stage production including acting and staging plays. Individual, small group and large group exercises in voice and diction, movement, stage presence, pantomime, and sensitivity will help students develop poise and confidence. Work with the staging aspects of blocking and ground planning, as well as elementary instruction in lighting, makeup, and set building, will provide a basic working knowledge of the art of live theater.

Drama II

Drama II is a course in more advanced techniques of acting and staging plays for students who have excelled in and found an interest in Drama I. In addition to more advanced instruction in communication through voice and body, basic aspects of play production will be explored. Students will design and present two major projects. (Students may elect to participate in the annual school play to fulfill one of these projects.) The course will be beneficial to those students planning to pursue further theatrical activities in high school, college, or the community.

Physical Education and Health

Co-Education Physical Education

Each student at California Area High School is required each year to take a one-semester course in Physical Education. The program developed by the Physical Education Department is

intended to help the students meet lifelong physical and recreational needs. The students will experience the basic to advanced movement skills necessary to improve their physical and neuromuscular development. Emphasis will also be placed on the relationship of physical activity to mental, social, and emotional development. Some of the activities included in the program are: Volleyball, hockey, pickleball, basketball, archery, team handball, cardiovascular endurance/muscular strength and endurance, wiffleball, handball, and badminton.

Fitness

This course is designed to apply knowledge of movement skills, skill-related fitness and movement concepts to identify and evaluate physical activities and promote personal lifelong participation. The students will analyze and engage in physical activities emphasizing cardiovascular, muscular strength and endurance, flexibility, and body composition in the least restricted environment that are developmentally/individually appropriate and support achievement of personal fitness and activity goals. Ultimately, the students will be able to create an individualized plan that promotes lifelong participation in physical activity.

Health

This course is designed to assist students in forming wholesome health habits and attitudes based on scientific knowledge of health and disease. Through the study of personality development, body systems, first aid, nutrition, disease and drugs, students gain a solid background to make choices and assume increasing responsibility for their personal health.

Intro to Physical Conditioning (College in the High School)

This course is designed for the student who wants not only to improve his/her physical well-being, but also to develop academic concepts and principles of physical exercise. Emphasis will involve a balanced integration of the wellness components, including the physical, mental, social and emotional. College credits may be earned with a grade of C or better and (Grade 12 students only).

College and Career Readiness

SAT Prep

Text: Students purchase materials

This comprehensive course is an elective that provides an overview of the math, critical reading, and writing sections of the Scholastic Aptitude Test (S.A.T). Given strategies and techniques, students will complete exercises and practice tests in preparation for this college entrance exam. Prerequisites include Algebra I, Algebra II, and Geometry.

College/Career Planning

This elective course is recommended for students in grades 11 and 12 who are planning to pursue post-secondary education and/or training. Through personal, college, and career exploration, students will learn their interests, aptitudes, and skills in order to identify academic pathways and the process of selecting a major and/or career path in the transition from high school to post-secondary endeavors. Learning methods will include interest inventories, post-secondary school searches, scholarship searches and applications (including essay writing), mock interviews, guest speakers (including human resource and admission officers and college/career development personnel), job shadowing, and career exploration projects/presentations. Application of the decision-making process based on research will assist students with making the connection between the skills necessary to compete in the workplace and employment success.

Restricted Courses

Applied Communication

This course is designed to help students develop and refine interpersonal and career-related communication skills. Students will improve reading, writing, listening, and speaking skills through applied activities including gathering and using information in the workplace, communicating with co-workers, and presenting point of view.

Study Skills

This course is offered to students who have been recommended by a learning support teacher. It is designed to enrich the academic program of each student, and promote the students' individual academic progress. Students enrolled in this course will receive a performance grade based upon the designated goals of the student. Grades will be based upon completion of assignments, attendance, and academic progress. This course will alternate with physical education for tenth grade students attending Mon Valley Career and Technology Center.

Vo-Tech/Work Co-Op

This program offers eligible students the opportunity to gain work experience in a field related to their coursework at the Mon Valley Career and Technical Center. Eligible students are considered after completion of the first semester of the junior year, maintain a "B" in their vo-tech course and a "C" in all high school courses. Eligible students demonstrate exemplary behavior and attendance. The MVCTC co-op coordinator and the high school guidance counselor monitor student progress.

Technical Math

**Prerequisites include the following: a student must have counselor or principal approval and must be a MVCTC student.

Independent Study

This option may be appropriate for students as recommended by a high school instructor. See the guidance counselor for more information. This option must be approved by the principal.

Community Service

This option must be approved by the principal. **Recommended for seniors only.

English as a Second Language

This course is for students whose primary language is other than English. The course is designed to instruct the students in the English language according to his or her proficiency level. The student will take this course until fluency in the English language is achieved.

Academic Strategies – English/Reading

This course is designed to help students' master skills essential for high school success. This course provides instruction in English grammar, Literature, reading comprehension and vocabulary skills.

Academic Strategies – Mathematics

This course is designed to help students' master skills essential for high school success. This course provides instruction in math skills.

Academic Strategies – Science

This course is designed to help students' master skills essential for high school success. This course provides instruction in science and technology.

Career and Technical Education Program of Studies

Important notes:

1. Students may elect for one, two, or three years of Career and Technical Studies.
2. Career or program specific mathematics is offered to interested students or students with a schedule conflict. Credits apply toward graduation requirements.
3. A student doing satisfactory work at the CTC and home school may be eligible for a paid work experience during school time in their field of study.

Automotive Collision

An instructional program that prepares individuals to apply technical knowledge and skills to repair damaged automotive vehicles, such as automobiles and light trucks. Students learn to examine damaged vehicles and estimate cost of repairs; remove, repair and replace upholstery, accessories, electrical and hydraulic window and seat operating equipment, and trim; to gain access to vehicle body and fenders; remove and replace glass, repair dented areas, replace excessively damaged fenders, panels and grills; straighten bent frames or unibody structures using hydraulic jacks and pulling devices; and file, grind and sand repaired surfaces using power tools and hand tools. Students refinish repaired surfaces by painting with primer and finish coat.

Automotive Technology

This course offers the students practical instruction in the diagnosis and repair of all automotive systems and their components. It is designed to provide instruction in the theory and principles of the automobile engine, electrical circuitry, chassis, clutch, transmission, lubrication systems, electrical controls, and computerized controls. Students can train to become an automotive technician or focus upon an area of specialization such as 4-wheel alignment, electrical/electronic diagnosis, and others. The students are also afforded the opportunity to obtain the Pennsylvania Safety and Emissions Certifications prior to graduation.

Carpentry

This course will prepare students to interpret designs and specifications in order to fabricate residential, commercial and industrial construction projects. Students learn to erect, install and repair structures using all types of construction material, as well as to estimate and select the specific materials needed for each project. Students learn to lay out projects using the framing square, transit, and various measuring, cutting and assembling instruments. Students also learn to apply interior and exterior finishes and to fit and install prefabricated cabinets, plastic laminates, floor and ceiling tiles, insulation, weather-stripping, finish hardware, and locksets.

Multimedia Design Technology

Students are instructed in the skills used by today's printing industry. Multimedia Design is the skill and the art of producing printed products on paper, glass, cloth, metal, or other materials. Most printed work consists of design artwork, typesetting, camera work, plate making, printing, finishing, binding, silk screening, computer generated graphics and digital photography. Learning is accomplished through a combination of classroom theory and actual hands-on projects. Students become familiar with the most efficient and most economical state-of-the-art methods for reproducing materials. Students learn the safe and correct methods of operations and maintenance of tools and equipment.

Computer Engineering Technology

An instructional program that focuses on the design, implementation and management of linked systems of computers, peripherals and associated software and prepares individuals with the technical skills required to support networks and network users. The program also

prepares individuals to apply basic engineering principles and technical skills in support of professionals who use computer systems. This program includes instruction in networks technologies, system design, architecture, operating systems, security, communications protocols, client support, messaging services, network management, trouble shooting and server optimization. The program also includes instruction in basic computer design and architecture, programming, problems of specific computer applications, component and system maintenance and inspection procedures, and hardware and software problem diagnosis and repair and report preparation. Students prepare and may test for industry certification exams given by Cisco, Comp TIA (Computing Technology Industry Association) and Microsoft: A+, Network +, Server +, Security +, Cisco Network Administrator, and Cisco Certified Network Associate.

Cosmetology

Students selecting this course will learn a variety of skills related to the field of cosmetology. Training in hair designing, cosmetic work, skin care, nail-care, and scalp management is offered. Included in the instruction are marketing, management, record keeping, ethics, and good public relations that apply to cosmetology. Upon completion of 1,250 hours of training, students are eligible to take the PA State Board examination in Cosmetology.

Culinary Arts

An instructional program that prepares students in employment related to institutional, commercial or self-owned food establishments or other food industry occupations. Instruction and specialized learning experiences include theory, laboratory and work experience related to planning, selecting, preparing, and serving of quantity food and food products; nutritive values, use and care of commercial equipment, safety, and sanitation precautions are provided in the school's restaurant, "Bushel of Class." Instructional skills are provided in all area of the food service industry.

Electrical Power

This program provides instruction on the installation of wiring systems that provides heat, light, air conditioning, and power to commercial, industrial, and residential facilities. Students will learn to layout, assemble, install, and test electrical apparatus and wiring systems. The course introduces students to robotic programming. Hydraulics, pneumatics, security systems, and programmable logic controls will also be taught. In addition to training as a construction electrician, students will also receive practice as a maintenance electrician, teaching them to keep the equipment they install operating. Graduates are not only limited to building trade construction but they are also prepared to enter maintenance, and industrial electrical occupations. Seniors may complete the first year of Apprenticeship with the Associated Builders & Contractors.

Health Occupations

The Health Occupations Education Curriculum is a cluster program designed to introduce careers in health care and to permit graduates to pursue post-secondary education. Basic health occupation instruction introduces field experience in extended classrooms in addition to the core curriculum. The Health Occupations Core instruction includes planned courses in Health Care Careers, Safety Practices, Anatomy & Physiology, Data Management Technology, Legal & Ethical Issues, Communications, Medical Terminology, Growth & Development, Nutrition, Infection Control, and Health Care Skills. Graduates of this program often pursue careers in nursing as well as in the rehabilitation fields such as physical therapy and occupational therapy. Students prepare and will have the opportunity to test for CPR Certification.

Precision Metal & Welding

This is an instructional program that prepares individuals to apply technical knowledge and skills in a variety of metalworking occupations. Instruction includes welding and cutting processes: setting up and operating machine tools (Precision Machining); metal fabricating,

forming and cutting machines; and assembling of metal products and structures Instruction is also provided in the use of hand and portable power tools in making computations related to work dimensions, the physical properties of materials and other related instruction and skills associated with metalworking occupations. Metals are cast, formed, sharpened, molded, heat-treated, cut, twisted, pressed, fused, stamped, or otherwise worked upon.

Construction Technology

This program prepares students to apply technical knowledge and skills required for the design, development, installation, and erection of buildings and other structures. Students will develop technical and math skills required in all stages of the construction process including safety, blueprint reading, rough framing, door and window installation, stair construction, roofing and siding, basic wiring, design and layout, finishing and trim installations, as well as masonry, plumbing and HVAC.

Credit Requirements for Promotion

The following listing denotes the recommended credits that must be attained to gain academic promotion to the next grade level at the high school. It is protocol to move students to the next level of academic standing until the student can no longer graduate (credit-wise) in the four year time span. This procedure does not reflect the academic standing of the student:

9 th to 10 th	-	6 ½ credits
10 th to 11 th	-	13 credits
11 th to 12 th	-	19 ½ credits
Graduation	-	26 credits

Graduation Requirements For High School Students

To graduate from California Area High School, a student must accumulate at least 26 credits over his/her high school career. It is the student's responsibility to enroll in the courses necessary for graduation and post-secondary preparation.

English	4 credits
Math	3 credits
Science	3 credits
Social Science	3 credits
Health	½ credit
Physical Ed	2 credits
Family & Consumer Science	½ credit
Electives	10 credits
	26 (total)