

# HAMMONTON HIGH SCHOOL

2018 - 2019

PROGRAM OF STUDIES

## REQUIREMENTS FOR GRADUATION

A. In order to qualify for a Hammonton High School state endorsed diploma a student must have completed the selected program of study appropriate to his/her needs and abilities, and must have earned a minimum of 120 credits which include the required subjects listed:

1. **ENGLISH** ..... **Four Years (20 credits)**  
Minimum of (5) credits to be taken in each of the first four years.
2. **UNITED STATES HISTORY** ..... **Two years (10 credits)**
3. **WORLD HISTORY** ..... **One Year (5 credit)**
4. **MATHEMATICS** ..... **Three Years (15 credits)**
5. **SCIENCE** ..... **Three Years (15 credits)**
6. **PHYSICAL ED/HEALTH/DE** ..... **Four Years (20 credits)**
7. **VISUAL and PERFORMING ARTS**..... **One Year (5 credits)**
8. **WORLD LANGUAGE**..... **One Year (5 credits)**
9. **CAREER EDUCATION AND CONSUMER, FAMILY, AND LIFE SKILLS, OR VOCATIONAL-TECHNICAL EDUCATION**..... **One Year (5 credits)**
10. **FINANCE**..... **One Year (5 credits)**
11. **SUCCESSFUL COMPLETION OF THE NJ STATE TESTING REQUIREMENTS**

### **HOMEROOM PLACEMENT**

Students are placed in homeroom based upon the total number of credits earned. There are no exceptions.

Grade 10	At least twenty (20) credits
Grade 11	At least fifty (50) credits
Grade 12	At least eighty (80) credits
Graduation	120 appropriate credits

### **PREREQUISITE**

The word, “prerequisite,” is used in this course selection guide to indicate a course or courses which are required to be **taken and passed**, unless otherwise noted, before the student can take that particular course.

### **SEMESTER COURSES**

A limited number of semester (1/2 year) courses will be offered. A student earns 2 ½ credits for each semester course successfully completed. Two semester courses may be taken for 5 credits or a semester course and a study hall for 2 ½ credits.

B. **COLLEGE REQUIREMENTS:** Most 4 year colleges require a minimum of 16 academic units.

1. **ENGLISH** ..... **Four Years (4 units)**
  2. **ALGEBRA 1 & 2 and GEOMETRY** ..... **Three Years (3 units)**
  3. **US HISTORY/WORLD HISTORY** ..... **Three Years (3 units)**
  4. **PHYSICS, BIOLOGY,  
CHEMISTRY** ..... **Three Years (3 units)**
  5. **GERMAN, ITALIAN, or SPANISH** ..... **Two Years (2 units)**
- Some colleges require at least 3 and possibly 4 years of world language.

C. **GENERAL RECOMMENDATIONS FOR ENTRANCE TO TWO YEAR COLLEGES**

Most two year colleges only require high school graduation. However, specific programs may require SAT scores and/or academic math and/or science.

**ALL OFFERED COURSES ARE DESIGNED TO PREPARE STUDENTS FOR FURTHER EDUCATION AT THE COLLEGE LEVEL. COLLEGE PREP, HONORS, AND AP LEVEL COURSES PREPARE STUDENTS FOR ACCEPTANCE TO COMPETITIVE FOUR YEAR COLLEGES. REGULAR LEVEL COURSES PREPARE STUDENTS FOR ACCEPTANCE TO COMMUNITY COLLEGES AS WELL AS VOCATIONAL/TECHNICAL SCHOOLS. CAREER AWARENESS/READINESS IS INFUSED IN THE CURRICULUM OF ALL COURSES.**

## **COURSE OFFERINGS**

### **ART**

**INTRODUCTION TO ART:** (5 Credits) This is an introductory level course in 2D and 3D media. Students will learn to use the elements and principles of design, while being exposed to a variety of materials and techniques. Students will focus on skills in drawing, painting, and printmaking and a variety of other 2D art media for one half of the year. Students will focus on skills in sculpture and pottery in a variety of 3D art media in the other half of the course. This course is a prerequisite for intermediate and upper level course offerings.

Prerequisite: None

Weight: Regular - Grades 9 - 12

**CP INTERMEDIATE ART :** (5 Credits) This course is organized to develop 2d and 3d skills in observation, techniques, design and creative thinking. Various 2d and 3d media will be studied in realistic, abstract, and non-representational styles. Technical processes and themes will be based on western and non-western traditions. Historical and contemporary styles will be explored in several themes: such as portraiture, figure study, interiors, functional and sculptural areas.

Field trips will be required to regional museums to expand student's experience with professional artistic production. Participation in the Annual Student Exhibit will teach students how to present their artistic work in a professional manner. Experimental use of media and individual assignments will foster college portfolio development.

Prerequisite: Introduction to Art

Weight: College Prep – Grades 10 - 12

**CP ADVANCED Art** (5 Credits) This course is organized to continue to develop advanced skills in observational drawing, painting techniques, design, creative thinking, printmaking and technology in the fine arts. Various drawing and painting media will be studied in realistic and major modern styles. Technical processes and themes will be based on Western and non-Western traditions. Historical and contemporary styles will be explored in still life, figure, portrait, landscape and illustration. Individual portfolio development and presentation will emphasize original individual expression. This course is also organized to continue developing advanced skills in spatial perceptions, three-dimensional design, creative thinking, and technology in the fine arts. Various pottery and sculpture techniques will be studied in realistic and major Modern styles. Technical processes and themes will be based on Western and Non-Western traditions. Historical and contemporary styles will be explored in functional vessels, portraiture, abstraction, and sculpture methods. Individual portfolio development and presentation will emphasize original individual expression.

Prerequisite: Introduction to Art, Intermediate Art

Weight: College Prep – Grades 11 - 12

## **BUSINESS**

**FINANCE:** (5 Credits) Understanding and managing personal finances are key to one's future financial success. This course is based on the new Jersey Personal Finance Competencies and presents essential knowledge and skills to make informed decisions about real world financial issues. Students will learn how choices influence occupational options and future earning potential. Students will also learn to apply decision making skills to evaluate career choices and set personal goals. The course content is designed to help the learner make wise spending, saving, and credit decisions and to make effective use of income to achieve personal financial success.

Prerequisite: None

Weight: Regular – Grades 10 - 12

**CP FINANCE:** (5 Credits) The topics covered in this course are the same as those covered in Finance, however the work load is much more rigorous. Students taking this course will use it for four year college preparation.

Prerequisite: None

Weight: College Prep - Grades 10 - 12

## English and Math READINESS

**READINESS CLASSES WILL BE PROVIDED TO STUDENTS WHO SCORE PARTIALLY PROFICIENT IN ELA AND/OR MATH ON STATE REQUIRED ASSESSMENTS, MAP SCORES, AND GRADES.**

**READINESS 9:** (5 Credits) This course is designed to provide additional instruction on core topics in ELA and Math. Topics will include reading complex texts, writing effectively to sources, presenting knowledge through research, algebra 1 concepts, reasoning mathematically, modeling real-world problems and mathematical fluency.

**READINESS 10:** (5 Credits) This course is designed to provide additional instruction on core topics in ELA and Math. Topics will include reading complex texts, writing effectively to sources, presenting knowledge through research, geometry concepts, reasoning mathematically, modeling real-world problems and mathematical fluency.

**READINESS 11:** (5 Credits) This course is designed to provide additional instruction on core topics in ELA and Math. Topics will include reading complex texts, writing effectively to sources, presenting knowledge through research, algebra 2 concepts, reasoning mathematically, modeling real-world problems and mathematical fluency.

## ENGLISH

**ENGLISH 1, 2, 3, and 4:** (5 Credits) These courses stress improvement in reading, speaking, listening and writing skills. Instruction common to all classes includes vocabulary/spelling improvement, grammar, mechanics, literature, writing improvement, debates, and oral speeches. Prerequisite: The appropriate level of English  
Weight: Regular – Grades 9 - 12

**CP ENGLISH 1:** (5 Credits) This course is designed for those students planning to enter a four year college directly following senior year. The course stresses the mastery of the mechanics of grammar, vocabulary development, composition, and oral presentations. The study of literature is presented in a multicultural approach. Requirements include a variety of writing assignments, four book reports and a research paper. Prerequisite: None  
Weight: College Prep

**HONORS ENGLISH 1:** (5 Credits) This course is restricted to college prep students who have been identified by the staff and administration, by tests and past performance, as being capable of succeeding on an advanced level of English. A greater demand is placed on additional readings, writings, debates and speeches with an emphasis on critical thinking skills. There are a greater number of required writing assignments which evolve from the multicultural approach to

literature as well as 7 book reports and a research paper.

Prerequisite: Eighth Grade Accelerated English and Accelerated Reading

Weight: Honors

**CP ENGLISH 2:** (5 Credits) This course is designed for those students planning to enter a four year college directly following senior year. It stresses the mastery of the mechanics of grammar, vocabulary development, composition, and oral presentations. The study of American Literature is presented through reading, writing, speaking and listening skills. Requirements include a variety of writing assignments, four book reports and a research paper based on an American author.

Prerequisite: English 1

Weight: College Prep

**HONORS ENGLISH 2:** (5 Credits) This course is restricted to college prep students who have been identified by the staff and administration, by tests and past performance, as being capable of succeeding on an advanced level of English. A greater demand is placed on additional readings, writings, debates and speeches with an emphasis on critical thinking skills. There are a greater number of required writing assignments which evolve from the study of American literature as well as 7 book reports and a research paper based on an American author.

Prerequisite: Honors or CP English 1

Weight: Honors

**CP ENGLISH 3:** (5 Credits) This class is designed to meet the needs of the academic student going on to further education at a four year college directly following senior year. Its focus is on the study of English literature and on writing literary analysis. Literary studies range from the Anglo-Saxon period to the Age of Rationalism. Shakespearian study focuses on the tragedy Macbeth. A research paper on some aspect of English literature is a requirement as well as three critical analyses on books by the same author.

Prerequisite: English 2

Weight: College Prep

**HONORS ENGLISH 3:** (5 Credits) This course is restricted to college prep students who have been identified by the staff and administration, by tests and past performance, as being capable of succeeding on an advanced level of English. A greater demand is placed on additional reading, writings, debates and speeches with an emphasis on critical thinking skills. There are a greater number of required writing assignments which evolve from the study of British Literature (440 A.D. - 1900 A.D.) as well as seven book reports and a research paper based on a British author.

Prerequisite: Honors or CP English 2

Weight: Honors

**AP ENGLISH 3:** (5 Credits) The AP class deals with various critical strategies in the understanding of literature. Students will be responsible for employing these strategies in literary

essays based on interpretation of literature ranging from Shakespeare's Macbeth play to Virginia Wolf's To The Light House. The canon for this course involves the study of classics, contemporary literature, and multicultural selections. Students are expected to bring a high level of critical thinking to their approach both in class discussion and in written assignments. This means college credit may be earned through successful achievement as measured by the advanced placement test that students are required to take at the end of the year. Each college will determine its own criteria.

Prerequisite: Honors or CP English 2

Weight: Advanced Placement

**CP ENGLISH 4:** (5 Credits) This class is designed to meet the needs of the academic student going on to further education at a four year college directly following senior year. Its focus is on the study of literature and composition. Literary studies range from the Romantic Age to contemporary times. Shakespearian study concerns the play Hamlet. Writings of literary analysis and a research paper based on a British novelist are required.

Prerequisite: English 3

Weight: College Prep

**HONORS ENGLISH 4:** (5 Credits) This course is restricted to college preparatory students who have been identified by the staff and administration, by tests and past performance, as being capable of functioning on an advanced level in English and who meet standardized honors course criteria. Students in this course will study such selections from World Literature as The Epic of Gilgamesh, Genesis, the Iliad, the Aeneid, and Dante Alighieri's Divine Comedy. A research paper and six book reports are required.

Prerequisite: Honors or CP English 3

Weight: Honors

**AP ENGLISH 4:** (5 Credits) This AP class deals with various critical strategies in the understanding of literature. Students will be responsible for employing these strategies in literary essays based on interpretation of literature ranging from Shakespeare's Hamlet to Toni Morrison's Beloved. The canon for this course involves the study of classics, contemporary literature, and multicultural selections. Students are expected to bring a high level of critical thinking to their approach both in class discussion and in written assignments. This means college credit may be earned through successful achievement as measured by the advanced placement test that students are required to take at the end of the year. Each college will determine its own criteria.

Prerequisite: AP, Honors or CP English 3

Weight: Advanced Placement

**CP JOURNALISM 1:** (5 Credits) This course is designed to develop student concepts and skills required for 21st century journalism and digital media production. The course stresses the value of the First Amendment, the role of the media in democracy, media law, and journalism ethics. Students will learn the techniques and software to cover news in a variety of mediums, including

writing, photojournalism, broadcast/video, social media, and studio television news production. Students will be instrumental in generating web and print content for the school newspaper.

Prerequisite: Successful completion of AP, Honors, or CP English course of the previous year with a B average or higher

Weight: College Prep - Grades 10, 11, 12

**CP JOURNALISM 2:** (5 Credits) Upon successful completion of CP Journalism 1, students will learn how to effectively manage and lead a publication while producing more advanced content for the school newspaper. As section editors, students will assign and manage content for the publication, edit pieces with students, track missed deadlines and assignments, and conduct mini-lessons and “show and tell” sessions to teach skills to CP Journalism 1 students. Students will learn to self assess to determine effective leadership styles and techniques and apply them to these editorial roles. More advanced techniques of digital media production will be studied, including convergence journalism and podcasting.

Prerequisite: Successful completion of CP Journalism 1 with a B average or higher

Weight: College Prep - Grades 11, 12

**CP PUBLIC SPEAKING:** (Semester course - 2.5 Credits) This course is designed to develop critical thinking skills expressed through oral communication; exchanging ideas to an audience while incorporating elements of communication. Special emphasis will develop delivery and organizational skills of speeches, including a variety of purposes such as debate, inform, persuade, and entertain.

Prerequisite: Successful completion of AP, Honors, or CP English course of the previous year with a B average or higher

Weight: College Prep - Grades 11, 12

**CP CREATIVE WRITING:** (Semester course - 2.5 Credits) This course is intended for students who want to further develop their creative writing skills. Students will be challenged to write numerous essays on a variety of topics emphasizing and encouraging the student’s creative thinking skills.

Prerequisite: Successful completion of AP, Honors, or CP English course of the previous year with a B average or higher

Weight: College Prep – 11, 12

**ENGLISH LANGUAGE LEARNER (ELL) ENGLISH:** (5 Credits) -Level 1,2,3 - This course is intended for students who have little or no knowledge of the English language. It provides the students with a functional command of the English language. Emphasis is placed upon individual needs. This course counts as an English requirement.

Prerequisite: ELL Program Placement

Weight: Not used for rank – Grades 9 - 12

**ENGLISH LANGUAGE LEARNER READING:** (5 Credits) This course is intended for beginner students who need an additional support class to learn the English language. This course



does not count as an English requirement.  
Prerequisite: ELL Program Placement  
Weight: Not used for rank – Grades 9 - 12

## WORLD LANGUAGE

**CONVERSATIONAL SPANISH 1:** (5 Credits) The emphasis of this introductory course to Spanish is oral communication in the target language, and the culture of the language and its people. Vocabulary will center on common everyday subjects such as family, time, dates, food, clothing, objects in the home, workplace, school, and travel.

Prerequisite: None  
Weight: Regular - Grades 9 - 12

**CP SPANISH FOR HERITAGE SPEAKERS I:** (5 Credits) *CP Spanish for Heritage Speakers I* is a course offered to students who already possess a considerable level of oral proficiency in their native language, but who require instruction in reading as well as in formal written and spoken Spanish. Authentic reading materials, films, and Internet resources will facilitate language acquisition, along with providing students a venue for exploring Latino/Hispanic cultural diversity, history, current events, etc. Additional topics can be identified through student interest and may include development of job-seeking skills. Discussions and analysis of literary works and global issues also will challenge students to develop the skills necessary for realizing their full potential as native speakers of Spanish.

Prerequisite: Screening to include teacher recommendation and completion of an assessment demonstrating the student's oral proficiency.  
Weight: College Prep - Grades 9 - 12

**CP SPANISH 1:** (5 Credits) An introduction to the language through grammar, vocabulary, short reading passages and pronunciation drills. First year students will learn to express themselves in basic conversational patterns. Students will be introduced to the Hispanic world through reading passages about the many Spanish speaking countries.

Prerequisite: None  
Weight: College Prep - Grades 9 - 12

**CP SPANISH 2:** (5 Credits) Second year students continue their study of grammar and vocabulary, while emphasizing reading. The students begin to broaden their knowledge of the Hispanic world through reading and writing about other countries and customs of native Spanish speakers.

Prerequisite: CP Spanish 1  
Weight: College Prep - Grades 10 - 12

**HON SPANISH 3:** (5 Credits) During the third year of study, students will complete their study of grammar. Greater emphasis is put on pronunciation, dialogue and composition work. Students

continue to read about the Hispanic world in their textbook and through current articles and various books.

Prerequisite: CP Spanish 2

Weight: HONORS - Grades 11 - 12

**HON SPANISH 4:** (5 Credits) Speaking and listening skills are sharpened through class discussions and oral reports. Grammar is reviewed and expanded through reading. Reading passages are selected from contemporary magazines and various books. Because this course is conducted extensively in the target language, only students with a “C” or better average in Spanish III will be encouraged to take this course. Great emphasis is put on studying the culture, traditions, and reading contemporary literature.

Prerequisite: CP Spanish 3

Weight: HONORS - Grade 12

**CP ITALIAN 1:** (5 Credits) First year students will learn to converse with each other in basic Italian conversational patterns. Grammar study and vocabulary building will follow. Cultural study will center on Italian geography.

Prerequisite: None

Weight: College Prep - Grades 9 - 12

**CP ITALIAN 2:** (5 Credits) Students will continue to learn grammar and specific vocabulary. More emphasis will be placed on conversation and composition in Italian. Cultural studies will concern Italian history, politics, art and geography.

Prerequisite: CP Italian 1

Weight: College Prep - Grades 10 - 12

**HON ITALIAN 3:** (5 Credits) This course will begin with a review of the major grammatical points from Italian 1 and 2 with greater emphasis on speaking and writing. New vocabulary units will be introduced with focus on usage and pronunciation. The study of culture and customs will also continue throughout the course.

Prerequisite: CP Italian 2

Weight: HONORS - Grades 11 - 12

**HON ITALIAN 4:** (5 Credits) This course will provide a more intense study of grammar and conversation. Various forms of literature will also be covered. Additional topics of cultural interest will be reviewed during the year.

Prerequisite: CP Italian 3

Weight: HONORS - Grade 12

**CP GERMAN 1:** (5 Credits) German 1 introduces the student to the German language in its most basic forms. Students will learn to read, speak, write, and listen to simple German for a variety of practical, everyday situations and will become acquainted with the customs, traditions, history, and geography of the German-speaking countries.

Prerequisite: None  
Weight: College Prep - Grades 9 - 12

**CP GERMAN 2:** (5 Credits) Students will build upon the skills acquired in German 1. Increased vocabulary and more complex grammar are introduced, and selected short stories are read. Greater emphasis will be placed on spoken and written forms of the language, as students begin to write brief compositions and role play situational dialogues.

Prerequisite: CP German 1  
Weight: College Prep - Grades 10 - 12

**HON GERMAN 3:** (5 Credits) This course completes the study of German grammar while emphasizing contemporary German idiom. Oral and written expression will be refined further and vocabulary development will be stressed. The latter portion of the course will be devoted to increasing the student's fluency in the language.

Prerequisite: CP German 2  
Weight: HONORS - Grades 11 - 12

**HON GERMAN 4:** (5 Credits) The goal of this course is further development and refinement of student ability and fluency in the German language. A variety of literary works from well-known German authors of the past and present are discussed. Familiarization with current events is stressed through viewing German news programs and reading German newspapers and magazines and use of the Internet. Students will be challenged to communicate entirely in German during class.

Prerequisite: CP German 3  
Weight: HONORS - Grade 12

## MATHEMATICS

**ALGEBRA 1:**(5 Credits) This course blends algebra with geometry, data analysis, discrete mathematics, and statistics. The teaching-learning model actively engages students in both guided and open-ended mathematical explorations that help them make sense of their experiences. This course helps students to also develop skills necessary to take the eleventh grade HSPA.

Prerequisite: None  
Weight: Regular - Grades 9 - 10

**CP ALGEBRA 1:** (5 Credits) This course provides for the development of concepts and skills needed in a first course in mathematics. Skill areas include fundamental operations of real numbers and polynomials, evaluating expressions, solving and graphing of linear and quadratic equations and inequalities.

Prerequisite: None  
Weight: College Prep - Grades 9 - 12

**GEOMETRY:** (5 Credits) This course teaches spatial and angle relationships and applies them to real-life situations. This course incorporates hands-on activities, cooperative learning opportunities, and exploratory exercises. This course helps students develop the necessary skills to be successful on the eleventh grade HSPA.

Prerequisite: Algebra 1

Weight: Regular - Grades 10 - 11

**CP GEOMETRY:** (5 Credits) This course is designed to develop student understanding of the basic structure of geometry as a mathematical system and its relationship to the natural world. The course emphasizes traditional Euclidean geometry. Much emphasis is placed on geometric properties, spatial relationships, angle relationships and proofs.

Prerequisite: Eighth Grade Algebra or Algebra 1

Weight: College Prep - Grades 9 - 12

**HONORS GEOMETRY:** (5 Credits) This course is designed to develop student understanding of the basic structure of geometry as a mathematical system and its relationship to the natural world. The course is designed to give the advanced student the opportunity to study the topics of geometry at more depth and at a faster rate. Emphasis is placed on traditional Euclidean geometry and coordinate geometry, geometric properties, spatial relationships, angle relationships, deductive and inductive reasoning, and proofs.

Prerequisite: Eighth Grade Algebra or CP Algebra 1

Weight: Honors - Grades 9 - 12

**ALGEBRA 2:** (5 Credits) This course continues to develop the structure of algebraic concepts begun in Algebra 1. It also includes the study of geometric concepts, development of graphing linear and quadratic relations, and functions. The use of a calculator as an integral part of the learning process will be stressed throughout the course. This course helps students to also develop skills necessary to take the eleventh grade HSPA.

Prerequisite: Geometry and Algebra 1

Weight: Regular - Grades 11 - 12

**CP ALGEBRA 2:** (5 Credits) This course is a more in-depth study of mathematics begun in CP Algebra I. Extended concepts and their applications include irrational numbers, complex numbers, and relations and functions including their graphical representations. The use of a graphing calculator is stressed throughout the course. A TI 84 graphing calculator is required.

Prerequisite: Eighth Grade Algebra or Algebra 1, Geometry is a pre or co requisite

Weight: College Prep - Grades 10 - 12

**HONORS ALGEBRA 2:** (5 Credits) This course is designed to give the more advanced student the opportunity to study the topics in an Algebra II course at an accelerated and more in-depth level. Topics include quadratic equations, rational expressions, irrational and complex numbers, functions, and sequences and series. A TI 84 graphing calculator is required.

Prerequisite: Eighth Grade Algebra or Algebra 1, Geometry is a pre or co requisite

Weight: Honors - Grades 10 - 12

**CP ADVANCED MATH:** (5 Credits) This course is designed to meet the needs of the college bound math student who will be planning to take calculus. This course will include a thorough study of functions including trigonometric, exponential and logarithmic functions and their graphs. Conic sections are investigated. The use of a graphing calculator is stressed throughout the course. A TI 84 graphing calculator is required. A B average is recommended in the prerequisites.

Prerequisite: Honors or CP Geometry **AND** Honors or CP Algebra 2

Weight: College Prep - Grades 11 - 12

**HONORS ADVANCED MATH:** (5 Credits) This course is designed to meet the needs of the college bound student who will be planning to take Honors Calculus in their senior year. This will be a rigorous curriculum dealing with advanced topics in analytical geometry, trigonometry, and the study of functions including transcendental functions and their graphs. The use of graphing calculators is stressed throughout the course. A TI 84 graphing calculator is required.

Prerequisite: Honors or CP Geometry **AND** Honors or CP Algebra 2

Weight: Honors - Grades 11-12

**CP CALCULUS:** (5 Credits) CP Calculus is designed for the student who wishes to prepare for college mathematics. Basic analytic geometry concepts are reviewed and extended. The function concept and operations and relations on functions are studied in detail. The concepts of differentiation and integration are studied. The use of a graphing calculator is stressed throughout the course. A TI 84 graphing calculator is required.

Prerequisites: Honors or CP Advanced Math **with a recommended B average**

Weight: College Prep - Grade 12

**HONORS CALCULUS:** (5 Credits) Honors Calculus is offered to those students who have demonstrated superior math skills and are preparing for college mathematics. Emphasis is placed on differential and integral Calculus and their applications. The use of a graphing calculator is stressed throughout the course. A TI 84 graphing calculator is required.

Prerequisite: Honors or CP Advanced Math

Weight: Honors - Grade 12

**AP CALCULUS AB:** (5 Credits) The AP Calculus AB course consists of a full college semester of study in calculus and related topics. The course is intended for students who have a thorough knowledge of college preparatory mathematics. Topics include functions and graphs, limits and continuity, differential and integral calculus. Multiple representations are stressed, and students will be expected to work with functions in a variety of ways: analytically, graphically, numerically and verbally. Students who take this course are expected to take the AP Exam and to seek college credit or placement, or both, from institutions of higher learning. A graphing calculator is required.

Prerequisite: Honors or CP Advanced Math

Weight: Advanced Placement - Grade 11 - 12

**AP CALCULUS BC:** (5 Credits) The AP Calculus BC course consists of two full college semesters of study in calculus and related topics. The course is intended for students who have successfully completed a previous calculus course or the prerequisites for Calculus AB with a teacher recommendation. Topics include functions and graphs, limits and continuity, differential and integral calculus, differential equations and their applications, infinite sequences and series, convergence, polynomial approximations, and polar and parametric coordinate systems. Multiple representations are stressed and students will be expected to work with functions in a variety of ways: analytically, graphically, numerically and verbally. Students who take this course are expected to take the AP Exam and to seek college credit or placement, or both, from institutions of higher learning. A graphing calculator is required.

Prerequisite: Honors Calculus or AP Calculus AB *or*  
Honors Advanced Math with Teacher Recommendation

Weight: Advanced Placement - Grade 12

**MATHEMATICAL ANALYSIS, APPLICATIONS, AND CONNECTIONS:** (5 credits)

This course is designed for those students who have completed Algebra II and would like to take an additional math course that prepares students for college and 21<sup>st</sup> century careers. Any student planning to attend a community college, military, vocational school, would benefit from this course, which will focus on those skills tested by a college basic skills test. Topics will include a review of basic math operations without a calculator, Algebra, Geometry, Consumer Math, and preparation for entrance exams and test readiness skills.

Prerequisite: Algebra I, Geometry, Algebra II

Weight: Regular – Grade 12

## **SCIENCE**

**PHYSICS:** (5 Credits) This course deals with applying math skills to explain the motion of objects, forces, energy, light and electricity. Students will learn problem-solving skills and how to explain the physical world around them.

Prerequisite: None

Weight: Regular - Grade 9

**CP PHYSICS:** (5 Credits) This course deals with applying math skills to explain the motion of objects, forces, energy, light and electricity. Students will gain a conceptual understanding of the physical laws dealing with motion, forces and energy.

Prerequisite: CP Algebra 1 (May be taken concurrently)

Weight: College Prep - Grade 9

**HONORS PHYSICS:** (5 Credits) This course is an introductory Physics course. It requires students to apply mathematical principles to solve practical problems. Honors Physics is an

accelerated course that will explore topics in classical mechanics, Newton's Laws, conservation of work and energy, and the fundamental principles of electricity and magnetism.

Prerequisite: CP Algebra 1

Weight: Honors - Grade 9

**BIOLOGY**: (5 Credits) Biology is the second of three required science courses. Students will study topics found in everyday life in the area of life science. This includes the study of living organisms and their systems.

Prerequisite: Physics

Weight: Regular – Grades 9 - 12

**CP BIOLOGY**: (5 Credits) C.P. Biology will offer traditional study of biological processes. The units covered will include cells, genetics, evolution, microorganisms, animals, plants, and ecology. Students will be required to conduct laboratory exercises and write a formal laboratory reports.

Prerequisite: CP Physics

Weight: College Prep – Grades 9 - 12

**HONORS BIOLOGY**: (6 Credits) This course is designed for the advanced student who is interested in a traditional, comprehensive biology course. The class will be a fast paced, in-depth rigorous course. Independent research and project work will be emphasized. Topics will include Cellular Biology, Biochemistry, Genetics, Vertebrate and Invertebrate Zoology, Botany, Ecology, Anatomy and Physiology, Evolution and Classification. Accelerated students may elect this course in grade 9 when meeting the appropriate criteria.

Prerequisite: 8<sup>th</sup> Grade or Honors Algebra 1 and Physics (can be taken concurrently)

Weight: Honors – Grades 9 - 12

**CHEMISTRY**: (5 Credits) Chemistry is the third year of the science sequence. Students will study topics found in everyday life in the area of chemistry. The course will include the study of fundamental principles and theories involved in everyday chemical reactions.

Prerequisite: Physics and Biology

Weight: Regular – Grades 11 - 12

**CP FORENSIC SCIENCE**: (5 Credits) Forensic Science is a course that illustrates how science and technology affect various aspects of society. The main focus of the course is on techniques used in forensic science to solve crimes. Topics covered are crime scene evaluation, fingerprints, DNA analysis, toxicology, and serology.

Prerequisite: Two Years of Science.

Weight: College Prep - Grades 11 - 12

**CP MARINE BIOLOGY**: (5 Credits) This course is an introductory marine biology course for students who are interested in possibly pursuing this area of study in college, or to just gain an understanding of the marine environment. This course will also be geared to any student who is

interested in oceanography, zoology, comparative anatomy, and ecology.

Prerequisite: Biology

Weight: College Prep - Grades 10 - 12

**CP CHEMISTRY**: (5 Credits) Chemistry is the systematic study of what substances are composed of, how their properties are related to their composition, and how one substance interacts with another. The course includes the study of fundamental theories and principles involved in all chemical reactions developed through a series of lab experiences. An average of C or better in CP math courses, and CP Discovery Science is recommended.

Prerequisite: CP Physics, CP Biology and 2 Years of CP Algebra (Second year of Algebra may be concurrent)

Weight: College Prep - Grades 10-12

**HONORS CHEMISTRY**: (6 Credits) This course is designed to give the more advanced student the opportunity to study the topics of chemistry, what they are composed of, how their properties are related to their composition, and how one substance interacts with another. Also covered are the fundamental theories and principles involved in all chemical reactions through a series of lab experiments.

Prerequisite: CP Physics, CP Biology and 2 Years of CP Algebra (Second year of Algebra may be concurrent)

Weight: College Prep - Grades 10-12

**AP BIOLOGY**: (7 Credits) This course is designed to be the equivalent of an introductory course taken by biology majors during their first year of college. The course includes those topics regularly covered in introductory college biology courses appropriate for biology majors such as cell respiration, photosynthesis, genetics, evolution, ecology, and plant and animal structure and function. Students who take this course are expected to take the AP Exam and to seek college credit or placement, or both, from institutions of higher learning. The pace of this course will be rapid and students will be required to complete work over the summer and during vacation times of the school year. Because of the scope of the material covered, class will meet one hour per day.

**STUDENTS WHO ELECT THIS CLASS WILL BE SCHEDULED FOR AP BIOLOGY DURING LUNCH 15 MINUTES PER DAY.**

Prerequisite: Honors or CP Biology and Honors or CP Chemistry

Weight: Advanced Placement - Grades 10-12

**AP CHEMISTRY**: (7 Credits) The AP Chemistry course consists of a full academic year of work in Chemistry and related topics comparable to courses in colleges and universities. The course is intended for students who have a thorough knowledge of college preparatory chemistry. Topics include Structure of Matter; Kinetic Molecular Theory of Gases; Chemical Equilibrium; Chemical Kinetics and Thermodynamics. Students who take this course may elect to take the AP Exam and may apply for college credit based on the test results.

**STUDENTS WHO ELECT THIS CLASS WILL BE SCHEDULED FOR AP CHEMISTRY DURING LUNCH 15 MINUTES PER DAY.**



Prerequisite: Honors or CP Chemistry  
Weight: Advanced Placement - Grades 11-12

**AP PHYSICS:** (7 Credits) AP Physics is equivalent to a college-level Physics course and is designed for students with strong interest and ability in Physics and mathematics. It is rigorous, with emphasis on problem-solving and applying concepts, both in class work and laboratory exercises. The AP Physics “C” course is a calculus-based Physics, which differs from the standard algebra/trigonometry-based introductory Physics course. Topics include: Part 1-- Mechanics: Linear, 2-Dimensional, and Rotational Motion, Forces, and Energy; Momentum, Oscillations, Gravitation, and Planetary Motion. Electricity and Magnetism topics will be covered as time permits. Students will take the AP Physics C exam in Mechanics, and may opt to take the AP Physics C exam in Electricity & Magnetism (these are 2 separate exams). Students can apply for college credit based in the AP exam results and lab work.

Prerequisite: Honors or CP Physics  
Co-requisite: Calculus  
Weight: Advanced Placement - Grades 11-12

**CP HUMAN ANATOMY AND PHYSIOLOGY:** (5 Credits) This course is a study of the dynamics of the human body in relation to structure and function. Each organ system will be discussed in relation to its contribution to the whole functioning organism as well as a basic survey of its pathologies.

Prerequisite: Two years of Science including Biology  
Weight: College Prep - Grades 11-12

**HONORS HUMAN ANATOMY AND PHYSIOLOGY:** (5 Credits) This course is a study of the dynamics of the human body in relation to structure and function. Each organ system will be discussed in relation to its contribution to the whole functioning organism as well as a basic survey of its pathologies. Laboratory component includes anatomical studies using microscopy and dissection and the study of physiological concepts via experimentation. This will be a fast paced, rigorous course, designed for the student interested in entering the medical field.

Prerequisite: Two years of Science including Biology  
Weight: Honors - Grades 11-12

## **SOCIAL STUDIES**

**WORLD HISTORY:** (5 Credits) This course is the first course of the history requirement for graduation. It is designed to provide a basic knowledge of historical events on a global scale which have shaped and molded our present society including history, government, geography, cultures, arts, and humanities. The course will go beyond providing a foundation in western civilizations by including studies on such non western civilizations as China, Japan, India, Africa, South America and the like. There are a number of required readings, a multimedia research project, and a required book report.

Prerequisite: None  
Weight: Regular - Grade 9

**CP WORLD HISTORY:** (5 Credits) This is a required course for all freshmen enrolled in the college prep curriculum and fulfills the first year of the three year history requirement. The course is designed to provide a basic knowledge of historical events on a global scale which have shaped and molded our present society including history, government, geography, cultures, arts, and humanities. The course will go beyond providing a foundation in western civilizations by including studies on such non western civilizations as China, Japan, India, Africa, South America and the like. There are a number of required readings, a multimedia research project, and a required book report.

Prerequisite: None  
Weight: College Prep - Grade 9

**HONORS WORLD HISTORY:** (5 Credits) This course fulfills the first year of the three year state history requirement. The course will provide knowledge of historical events from the dawn of civilization to modern times that have shaped and molded our present society. The course will provide a solid foundation in our western civilization roots as well as those great non-western civilizations that have done likewise. There are a number of required readings, a multimedia research project, 2 book reports and written abstracts required.

Prerequisite: None  
Weight: Honors - Grade 9

**UNITED STATES HISTORY 1:** (5 Credits) This course is the second course of the history graduation requirement. It surveys American History from the period of Indian settlements in America up to the Civil War and Reconstruction Period. There are a number of required readings, multimedia research project, a book report, and study of original historical documents related to the period.

Prerequisite: None  
Weight: Regular - Grade 10

**CP UNITED STATES HISTORY 1:** (5 Credits) This is a recommended course for college bound sophomores and meets their second year history requirement. The course surveys American History from the period of Indian settlements in America up to the 1900's. There are a number of required readings, a multimedia research project, a book report and study of original historical documents related to the period.

Prerequisite: None  
Weight: College Prep - Grade 10

**HONORS UNITED STATES HISTORY 1:** (5 Credits) This course meets the second year of the three year state history requirement. The course will provide an in-depth study of American History from the period of exploration up to the 1900's. There are a number of required readings, a multimedia research project, 2 book reports and written abstracts required.

Prerequisite: Honors or CP World History  
Weight: Honors - Grade 10

**HONORS EARLY AMERICAN STUDIES (A)**: (5 Credits) This class, the first in a two-year sequence, provides a study of historical events, concepts, interpretations and themes within the framework of a U.S. history survey course from the colonial period through 1877. It is designed for highly motivated students with excellent proficiency in reading and well-developed analytical writing skills. The rigors of the course include complex primary source readings, AP-styled assessments including multiple choice, free response and document based questions, and command of a college level textbook. Students should be prepared to critically analyze diverse historiography of past events and develop new interpretations that respond to the needs of the present.

Participants in this course are expected to prepare for and take the AP US History Examination at the end of AP US History in 11<sup>th</sup> grade.

Prerequisite: CP World History or Honors World History  
Weight: Honors - Grade 10

**UNITED STATES HISTORY 2**: (5 Credits) This course is the third year course of the history graduation requirement. It surveys American history from the period of post war reconstruction up to and including the present administration. There are a number of required readings, a multimedia research project, a book report, and study of original historical documents related to the period.

Prerequisite: US History 1  
Weight: Regular - Grade 11

**CP UNITED STATES HISTORY 2**: (5 Credits) This is a recommended course for college bound juniors and meets their third year history requirement. The course surveys American history from 1900 up to the present Clinton Administration. There are a number of required readings, a multimedia research paper, a book report, and study of original historical documents related to the period.

Prerequisite: US History 1  
Weight: College Prep - Grade 11

**HONORS UNITED STATES HISTORY 2**: (5 Credits) This course meets the third year of the three year state history requirements. The course will provide an in-depth study of American History from the 1900's to the Clinton Administration. There are a number of required readings, a multimedia research project, 2 book reports and written abstracts required.

Prerequisite: Honors or CP U.S. History 1  
Weight: Honors - Grade 11

**AP UNITED STATES HISTORY**: (5 Credits) This course will provide a comprehensive survey of the social, political, economic, and intellectual history of the United States from the post Civil

War period of industrialization through modern times. Included will be a review of United States 1 material and an emphasis on preparation for the AP United States History test. College credit may be earned through successful achievement as measured by the advanced placement test that students are required to take at the end of the school year.

Prerequisite: Honors or CP World History and Honors or CP United States History 1

Weight: Advanced Placement - Grades 11-12

**AP EUROPEAN HISTORY:** (5 Credits) This course is designed to focus on the social, political, cultural, economic and intellectual history of western civilization. Students will be required to take the AP European History test in May, do extensive independent readings, writings and research.

Prerequisite: Honors or CP U.S. History 1 and Honors or CP U.S. History 2

Weight: Advanced Placement - Grade 12

**CP SOCIOLOGY:** (5 Credits) This course is designed for students seeking knowledge of the science of human society and of social relationships, organization, and change, including beliefs, values, etc., of societal groups and the processes governing social phenomena.

Prerequisite: None

Weight: College Prep - Grades 11-12

**HONORS HOLOCAUST AND GENOCIDE STUDIES:** (5 Credits) This course is designed to give the student a survey of major genocidal movements throughout the 20th Century and into the present day. The Holocaust will be a major focal point due to its immense importance, but will encompass about half of the class time. Many other important genocide and Human Rights issues will also be explored.

In addition to gaining high school credit as an elective, students are also eligible to enroll in Stockton University's Dual Credit program in Holocaust and Genocide. With a passing grade of C or better, students can earn four college credits that will be recorded on their Stockton University transcripts. The cost for registering for Stockton University's Dual Credit program is \$400.00. Tuition waivers are available for qualified students (free and reduced lunch recipients). In addition, some financial assistance may be available on a per case basis.

Prerequisite: AP U.S. History, Honors U.S. History 2 or CP U.S. History 2

Weight: Honors - Grade 12

## PSYCHOLOGY

**CP PSYCHOLOGY:** (5 Credits) This course is designed to study human behavior in today's society. Students will better understand their own behavior and the effects such behavior has upon their peers. Topics such as study habits, family life, sexual development, assuming adult roles and mental health problems will be discussed.

Prerequisite: Recommended B average in preceding CP or Honors English

Weight: College Prep - Grades 11-12

**AP PSYCHOLOGY:** (5 Credits) The AP Psychology course is designed to introduce the student to the systematic and scientific study of behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn the methods psychologists use in their science and practice.

Prerequisites: Recommended B average in preceding CP or Honors Biology, English, and Social Studies

Weight: Advanced Placement – Grades 10, 11, 12

## MUSIC

**CHORUS (CP CHORUS years 2, 3 and 4):** (5 Credits) Chorus is an elective open to all students, regardless of previous experience. The musical experience will include popular music and the music of Broadway. Participation in several performances throughout the year is required. (Can be taken 3 times for credit)

Prerequisite: None

Weight: Regular - Grades 9-12

**CONCERT CHOIR (CP CONCERT CHOIR years 2, 3 and 4):** (5 Credits) Concert Choir is an elective open to all students, regardless of previous experience. The choral experience will include singing concerts throughout the year as well as participation in choral festivals. Some after school rehearsals are required.

Prerequisite: None

Weight: Regular - Grades 9-12 (Can be taken 3 times for credit)

**SELECT CHOIR (CP SELECT CHOIR years 2, 3 and 4):** (5 Credits) This course is an auditioned group open to any student in grades 9-12. Students must qualify through an audition by the choral director. The choral experience will include advanced level choral music. Participation in several performances throughout the year is required. Can be taken 4 times for credit

Prerequisite: Audition

Weight: Regular - Grades 9-12

**CP SHOW CHOIR:** (5 Credits) Students will study and perform vocal music in the Jazz, Pop, and Swing styles. Many of the selections will be choreographed. Students will learn the art of movement and dance as well as the enhancement of the vocal rendition of various works. Practical application of note identification, clefs, breathing, vocal pedagogy and producing a tone through music to be sung in a concert will also be studied. Preparation for and participation in auditions for solos will be required. Students will write critiques of the performance of choreographed selections.

Prerequisite: None

Weight: CP Grades 10-12

**BAND (CP BAND years 2, 3 and 4):** (5 Credits) Band is an elective for instrumental students. Standard band literature and orchestra transcriptions and multicultural music are rehearsed and performed. Theory, harmony, form and music history are included and approached through the music. Students are required to attend concerts and public performances as part of their grade.

Prerequisite: For instrumental students only

Weight: Regular - Grades 9-12 (Can be taken 4 times for credit)

**CP JAZZ “LAB” BAND (years 2, 3, and 4):** (5 Credits) Jazz “Lab” Band is an elective for instrumental students. Standard jazz band literature, modern jazz, jazz transcriptions, and improvisational skills are rehearsed and performed. Theory, harmony, form, improvisation, and music history are included and approached through the music.

Prerequisite: Band, For instrumental “concert” students only

Weight: Regular - Grades 10 - 12 (Can be taken 3 times for credit)

**MUSIC THEORY AND TECHNOLOGY:** (5 Credits) This is an introductory level course in the basic principles of music reading, music writing, specifically with music writing and recording computer applications. This class will be largely centered on developing proficiency with the Sibelius Music Notation Software and Apple’s GarageBand, two incredibly important programs used for recording rock bands, producing music, and movie score writing. The class begins with the fundamental principles of music, the study of various genres of music from classical to modern rock/alternative forms, and then the composition of one’s own music. After writing a work of music, the music is then transferred to GarageBand to add a professional feel in terms of advanced sound sets, MIDI instrument tweaking, drum loops, and more.

Prerequisite: None

Weight: Regular - Grades 9-12

**CP MUSIC THEORY AND TECHNOLOGY:** (5 Credits) This is an intermediate to advanced course in music writing, recording, specifically with movie score composition. This class will be largely centered on the analysis of movie music and scores throughout history, the compositional techniques of movie scoring, and then the writing of one’s own movie scores. Students of this class will be able to write their own music as it works in relation to video, record their music, then produce and tweak their music using GarageBand and Logic Studio.

Prerequisite: MUSIC THEORY AND TECHNOLOGY

Weight: College Prep – Grades 10-12

## **PHYSICAL EDUCATION & HEALTH/DRIVER EDUCATION**

**PHYSICAL EDUCATION & HEALTH:** (5 Credits) Provides instruction in physical activities in a wide variety of team and individual sports. Health is offered to improve the knowledge, practices, and attitudes of individuals for their mental and personal well-being. Family life

consideration is part of this course. Students who come out of PE for a lab during one period per week will receive four credits. (HE - Grades 9, 11, and 12 & PE - Grades 9, 10, 11, 12)

Weight: Regular level

**DRIVER EDUCATION:** This course is taught in 10<sup>th</sup> grade and gives students the theory of driving laws and the rules of the road in order that they may develop safe driving habits. In addition, safety procedures regarding vehicle transportation is covered in detail.

Weight: Regular level – Grade 10

### **FAMILY AND CONSUMER SCIENCE**

**FOODS AND NUTRITION:** (5 Credits) This course is designed to educate students in the preparation of food and to convey the importance of nutrition. It will promote the development of basic meal planning and preparation skills both at home and in the food service and hospitality industries. Students will learn about the basic food groups and the food pyramid. Safety will be emphasized in the area of sanitation and safety practices.

Prerequisite: None

Weight: Regular – Grades 9-12

**CP FOODS AND NUTRITION:** (5 Credits) This course is designed to further introduce the study of nutrition as it relates to the planning and preparation of meals. FDA standards relating to the food groups and food pyramid are integrated with laboratory experiences to challenge the students to utilize the food concepts they have learned. Other areas of culinary studies will include international and regional foods of the United States as well as local agricultural foods.

Prerequisite: Foods and Nutrition

Weight: College Prep - Grades 10 – 12

**CP FOODS AND NUTRITION HOSPITALITY/MANAGEMENT:** (5 Credits) This course is a continuation of the second level foods and nutrition course and is designed to meet the needs of students furthering their education in this field of study. Hospitality and management skills will be taught in preparation for a career in hospitality management.

Prerequisite: CP Foods and Nutrition

Weight: College Prep - Grades 11 – 12

### **TECHNOLOGY**

**Foundations of Technology:** (5 Credits) This course is designed to acquaint students with all areas of technology education offered at the high school level. Units of study include: Invention/Innovation, Entrepreneurship, Production Systems, Robotics, Transportation Systems,

Structural Systems, Biotechnology, Information Systems and Power and Energy. The course utilizes a hands-on design and problem solving approach as a major part of the learning experience to solve real-world problems. Taking on the role of researcher, designer, builder, testing, evaluator, and presenter, gives students a better understanding of future career opportunities.

Prerequisite: None

Weight: Regular - Grades 9-12

**DIGITAL CINEMA 1:** (5 Credits) This course will introduce students to the world of electronic communications. It will focus on both the technical and creative skills used in radio, television, and film production. Students will have the opportunity for hands-on learning with studio video cameras, lighting, special effects devices, and audio recorders/mixers. A wide range of experiences will be provided in speaking, script writing, editing, computer graphics and on-camera presence and delivery.

Prerequisite: Recommended C or better in previous year's English course

Weight: Regular - Grades 9-12

**CP DIGITAL CINEMA 2:** (5 Credits) – This course is designed as a follow-up course building on the basic knowledge gained in Television/Media 1. This course will focus on both the technical and creative skills used in producing short films, and broadcast-quality productions promoting various school district programs. A wide range of hands-on learning with field/studio video shooting, script writing, advanced editing techniques, computer graphics, and on-camera performance will be provided.

Prerequisite: Digital Cinema 1

Weight: College Prep – Grades 10-12

**Materials Processing:** (5 Credits) Provides a learning experience for students to use a variety of tools to make useful items from wood and other materials. Typical projects are clocks, lamps, jewelry, shelves, games, electronics kits, models, and designing home workshops. Plans are original or taken from books. Students may supplement their project work with technology activities that are interrelated with other classes.

Prerequisite: None

Weight: Regular - Grades 9-12

**CP Materials Processing:** (5 Credits) Provides continued experiences for students to create more challenging projects using the skills acquired in the prerequisite course. Project work time is greatly increased for students who possess the knowledge provided in the first year course. This class may be taken twice for credit.

Prerequisite: Materials Processing

Weight: College Prep - Grades 10 - 12 (Can be taken 2 times for credit)

**TECHNICAL DESIGN:** (5 Credits) This program exposes students to a variety of fundamental skills utilized in entry-level computer aided-drafting (CAD) and design positions. Students



are exposed to CAD technologies and conventional drafting methods to produce various orthographic, isometric, and working drawings. Students will be exposed to 2D and 3D design and software as well as 3D printing. Students will be exposed to both classroom theory and lab projects, including but not limited to CO2 car design, architectural floor plans, and computer programming of robotics.

Prerequisite: None

Weight: General - Grades 9-12

**CP ENGINEERING DESIGN:** (5 Credits)

This course allows the students to further develop their skills in mechanical drawing. Visualization and design skills using the CAD software will be an integral part of the course. In addition, various assembly drawings will be developed such as detailed parts assembly and general assembly. Solid modeling on CAD as well as Computer integrated Manufacturing will be explored. Projects will be documented in design briefs, and show development and justification of designs. Careers and college choices will be discussed throughout the course. This course is a must for any student interested in the engineering and architectural fields.

Prerequisite: Technical Design

Weight: College Prep - Grades 10-12

**CP PRODUCTS/STRUCTURAL DESIGN:** (5 Credits) This is a project based course that covers modern tools and methods for product design and development. A varied range of design projects will allow students to create open ended design solutions that touch on topics that include identifying customer needs, concept generation, product architecture, industrial design, and design-for-manufacturing. The capstone project is a project in which groups of students conceive, design and prototype a physical product. Artistic as well as engineering concepts will coalesce to produce products where both are considered in the design. Class sessions are conducted in a workshop mode, employ case studies and hands-on exercises to reinforce the key ideas.

Prerequisite: CP Engineering Design

Weight: College Prep – Grades 11-12 (COUNTS AS A VISUAL ART ELECTIVE)

**CP 3D CHARACTER DESIGN AND ANIMATION I – CHARACTER CREATION:**

(5 credits) 3D Character Design and Animation I would utilize Pixologic's ZBrush, a digital sculpting and painting program, along with Adobe Photoshop. The focus for this class would be developing a familiarity with the tools and process involved in developing character ideas into fully-realized characters sculpted and textured in a 3D environment. ZBrush would be the primary tool for the digital creation, while Photoshop would be utilized in order to create final character presentation sheets, complete with environments and post production effects.

Prerequisite: None

Weight: College Prep – Grades 10-12

**CP 3D CHARACTER DESIGN AND ANIMATION II – CHARACTER ANIMATION:**

*(5 credits)* 3D Character Design and Animation II would utilize Autodesk’s Maya as a means for students to develop the knowledge and skill to rig and animate their own 3D characters. 3D Character Animation would utilize Maya’s robust modeling and content creation tools, as well as its skeleton and muscle creation systems, in order to allow for the characters created in ZBrush to be given life and motion for use in a game engine or short film.

Prerequisite: CP 3D Character Design and Animation I – Character Creation

Weight: College Prep – Grades 11-12

**GRAPHIC DESIGN 1:** *(5 Credits)* Graphic Design is an introductory level course in design, illustration, printing, digital photography, and digital imaging. Students will utilize Adobe PhotoShop, Adobe Illustrator, and Macromedia Freehand software to design and develop digital prints. This course will provide students with the knowledge of how to use current technology to design and create digital images for print and media.

Prerequisite: None

Weight: Regular – Grades 9-12

**CP GRAPHIC DESIGN 2:** *(5 Credits)* This course will allow students to further their knowledge and develop an understanding of color and composition, design, typography, and drawing. Magazines, DVD covers, corporate stationery, television graphics, billboards-all are composed of images, design, and printed words that work together to sell products or services or convey ideas. This is the fundamental concept of advanced graphic design, on which some of today’s most dynamic fields, advertising, publishing, television, and visual communications, are based.

Prerequisite: Graphic Design 1

Weight: College Prep – Grades 11-12

**STRUCTURED LEARNING EXPERIENCE**

**STRUCTURED LEARNING EXPERIENCE:** *(15 Credits)* The Structured Learning Experience provides an opportunity for on-the-job work experience for eligible students on a part-time basis. Interested students, who have specific and definite occupational intentions, attend school part-time and work for standard wages during the other periods of time. The basic aim of this program is to give the student a head start in the world of work through experiences in school and on the job.

Prerequisite: See Counselor for Specific Details

Weight: Regular - Grades 11-12 and Special Education students 16 years or older (Can be taken more than once for credit)