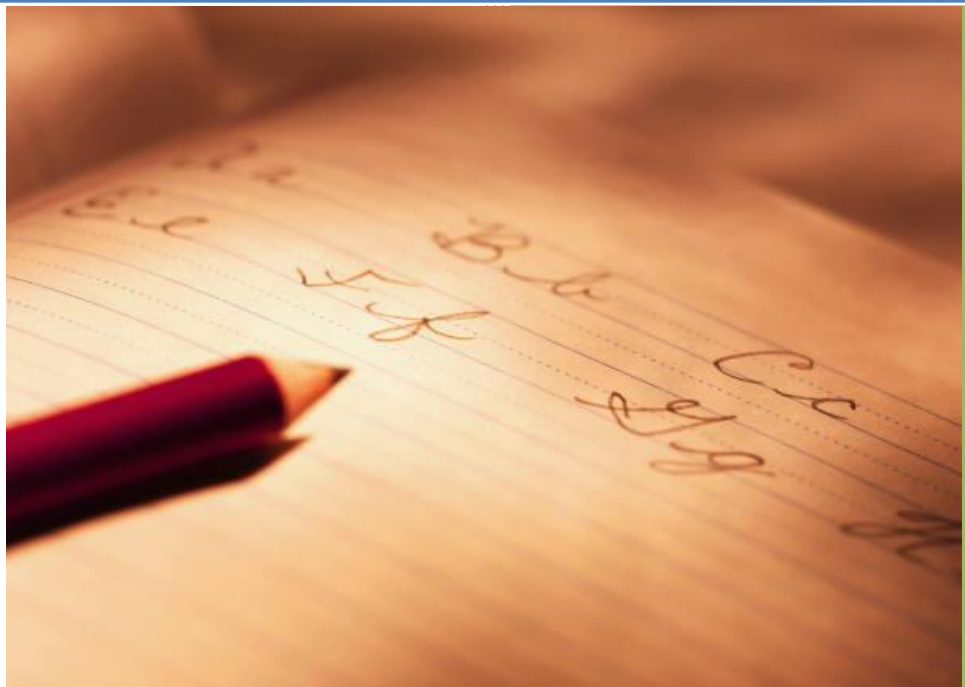


2017-  
2018

# Highland High School Course Catalog



Debra Vigstrom, Principal

HIGHLAND HIGH SCHOOL  
*Table of Contents*

**Course Selection.....3**

**HHS Four Year Plan.....4**

**A-G Requirements.....5**

**Course Descriptions by Department:**

**English.....6**

**Social Studies.....7**

**Mathematics.....8**

**Science.....11**

**Modern Languages.....12**

**Physical Education.....14**

**Fine Arts.....14**

**Career Education.....16**

        Information Technology.....16

        Agriculture.....17

        Engineering & Design.....18

        Biomedical Sciences.....18

**Miscellaneous.....19**

**Special Education.....21**

**Regional Occupation Center.....21**

# COURSE SELECTION

Course selection for Highland High School will take place during the months of February, March, April, and May. It is extremely important that students adhere to the following guidelines when registering for the next school year.

1. Read carefully the instructions of the course selection form before starting to make course selections.
2. Choose a four-year curriculum plan and prepare for the future. Study the requirements for graduation and for college preparation that are included in this handbook. The curriculum is designed to provide core courses during the 9<sup>th</sup> and 10<sup>th</sup> grades and two paths during the 11<sup>th</sup> and 12<sup>th</sup> grades:
  - A. College and University bound student
  - B. Career or Technical Program bound student
3. Begin selection of courses based upon your goals and descriptions of the classes in this handbook. Your required classes will be “pre-scheduled” for you based upon teacher recommendation. The staff person registering you will explain your placement in these classes and make changes if necessary.
4. Make sure you meet the prerequisites for the courses you select. If a course requires teacher permission, your selection may not become final until permission is verified.
5. During the registration process, you will select a total of six classes plus four alternates from the “Required” and “Elective” categories.

The course descriptions contained in this handbook will help students understand what each course will offer, prerequisites, grade level, credits, and length of course.

Last Name: \_\_\_\_\_

First Name: \_\_\_\_\_

# Highland High School Four Year Plan

Date: \_\_\_\_\_

Universal (6 Digit) ID Number: \_\_\_\_\_

Year in School	Freshman		Sophomore		Junior		Senior		GRAD Req.	A-G Req.
Summer School/8 <sup>th</sup>										
English	English 9	English 9	English 10	English 10	English 11	English 11	English 12	English 12	40	40
Social Studies			World History	World History	U.S. History	U.S. History	Government	Economics	30	20
Mathematics									30	30
Science	Earth Science (AG)	Earth Science (AG)	Biology (AG)	Biology (AG)					20	20
Foreign Language									10	20
Fine Arts										10
Health Education /Computer Intro.	Health (5)	Computer Intro. (5)							5	
Physical Education	PE 9 Core	PE 9 Core	PE 10 Core	PE 10 Core					20	
Electives/CTE										
Electives/ROP/RCC	XXXX	XXXX	XXXX	XXXX					65	10
<b>ALGEBRA</b>		<b>POST GRADUATION PLANS</b>		<b>CAREER GOALS</b>		<b>PATHWAY</b>		Credits Needed to Graduate	<b>220</b>	
____ Algebra/Algebra/Equivalent  ____  ____		____ Four Year College ____ Community College ____ Business/Trade/Tech. School ____ Military ____ Work Full time		1. ____ 2. ____ 3. ____		____ Career ____ College		<b>Note: "A-G Req." are college admission course requirements. They must be college preparatory classes or above. Grades of "C" or better are required for these courses.</b>		

**If you plan to go to a four year college See UC/CSU Requirements**

## **A-G Subject Requirements for California State “4” Year Colleges**

	<b>University of California (UC)</b>	<b>California State University (CSU)</b>
<b>A</b>	<b>History/Social Science</b> <b>2 yrs. Required</b> <i>(2) yrs. of History/Social Science, including (1) yr. of World History, Cultures &amp; Geography; &amp; (1) yr. of U.S. History or ( ½) yr. of U.S. History and (½) yr. of Civics or American Government.</i>	<b>History/Social Science</b> <b>2 yrs. Required</b> <i>(1) yr. of U.S. History or U.S. History and American Government, and (1) yr. of Social Science.</i>
<b>B</b>	<b>English</b> <b>4 yrs. Required</b> <i>(4) yrs. of college prep English that include frequent &amp; regular writing, &amp; reading of classic &amp; modern literature. No more than (1) yr. of ESL- type courses can be used to meet this req.</i>	<b>English</b> <b>4 yrs. Required</b> <i>Composition and literature designated as college preparatory.</i>
<b>C</b>	<b>Mathematics</b> <b>3 yrs. Required/ 4 yrs. Recommended</b> <i>(3) yrs. of college prep Math that include the topics covered in Elementary &amp; Advanced Algebra &amp; two-and three-dimensional Geometry. Approved Integrated Math courses may be used to fulfill part or all of this req., as may Math courses taken in the 7<sup>th</sup>/8<sup>th</sup> grades that HHS accepts as equivalent to its own Math courses.</i>	<b>Mathematics</b> <b>3 yrs. Required</b> <i>Algebra I, Geometry, Algebra II, Integrated Math &amp; Advanced Math. Courses taken in 7<sup>th</sup>/8<sup>th</sup> grades may be considered. (Class of 2015 Geometry must be taken in regular school year)</i>
<b>D</b>	<b>Laboratory Science</b> <b>2 yrs. Required/3 Recommended</b> <i>(2) yrs. of lab science providing fundamental knowledge in at least (2) of these three core disciplines: Biology, Chemistry and Physics. Advanced Lab Science courses that have Biology, Chemistry or Physics as prerequisite and offer substantial additional material may be used to fulfill this req. The final (2) yrs. of an approved (3) yr. integrated Science program may be used to fulfill this req.</i>	<b>Laboratory Science</b> <b>2 yrs. Required with Lab</b> <i>At least (1) Biological Science and (1) Physical Science.</i>
<b>E</b>	<b>Language other than English</b> <b>2 yrs. Required/3 Recommended</b> <i>(2) yrs. of the same language other than English. Courses should emphasize speaking &amp; understanding, &amp; include instruction in grammar, vocabulary, reading, composition and culture. Courses in languages other than English taken in the 7<sup>th</sup>/8<sup>th</sup> grades may be used to fulfill part of this req. if HHS accepts them as equivalent to their own courses.</i>	<b>Language other than English</b> <b>2 yrs. Required in the same language</b> <i>Subject to waiver for applicants demonstrating equivalent competence. College prep language courses taken in 8<sup>th</sup>/9<sup>th</sup> grade may be included.</i>
<b>F</b>	<b>Visual &amp; Performing Arts (VPA)</b> <b>1 yr. Required</b> <i>A single yearlong approved arts course from a single VPA discipline: dance, music, drama/theater, or visual art.</i>	<b>Visual &amp; Performing Arts (VPA)</b> <b>1 yr. Required</b> <i>Art, dance, theater/drama, music. At least (1) yr. must be in the same discipline, e.g., music, drama, etc.</i>
<b>G</b>	<b>College Prep Electives</b> <b>1 yr. Required</b> <i>(1) yr. in addition to those required in “A – F” above, chosen from the following areas: visual &amp; performing arts (non-introductory-level courses), History, Social Science, English, Advanced Math, Lab Science &amp; a language other than English (a 3<sup>rd</sup> yr. in the language used for the “E” req. or 2 yrs. of another language)</i>	<b>College Preparatory Elective</b> <i>Courses not listed above (but are included on UC “A -G” list under “G”).</i>

- ❖ Follow “A – G” Requirements to improve your chances of being accepted at a CSU College of your choice
- ❖ Impacted CSU Colleges: Cal Poly San Luis, Chico, Humboldt, Northridge, San Diego, San Jose
- ❖ Grades of “D” will not be accepted for Subject Required Classes

# ENGLISH

## **ENGLISH 9 P**

Grade 9, two semesters

**PREREQUISITE:** Placement based upon parent/student request & feeder school recommendation.

**COURSE DESCRIPTION:** This college-preparatory course includes instruction in reading, writing, speaking, listening and analyzing skills needed for those who plan to attend CSU or the University of California. Students will be exposed to essential technology needed for academic success, as well as interdisciplinary curriculum.

*UC a-g approved for "b"*

## **ENGLISH 9 GATE**

Grade 9, two semesters

**PREREQUISITE:** Student eligibility determined by District criteria. Parent permission required.

**COURSE DESCRIPTION:** This course parallels the English 9 P curriculum with the use of texts and materials designed for the special needs of the talented student. Enrichment includes exposure to the humanities; i.e. art, music and history through an interdisciplinary approach. Individual exploration of student academic interests is provided. Students will be exposed to essential technology needed for academic success. The rigorous nature and enrichment of this course serve to prepare students for Honors and AP courses.

*UC a-g approved for "b"*

## **ENGLISH 10 P**

Grade 10, two semesters

**PREREQUISITE:** none

**COURSE DESCRIPTION:** This college-preparatory course requires students to read and write critically

on selected literary works. Students will read, discuss, analyze and write using a variety of strategies. Students will continue to develop oral proficiency through in-class presentations.

*UC a-g approved for "b"*

## **ENGLISH 10 GATE**

Grade 10, two semesters

**PREREQUISITES:** Teacher recommendation and satisfactory completion of English 9 GATE.

**COURSE DESCRIPTION:** This course parallels the English 10 P curriculum with the use of texts and materials designed for the special needs of the talented student. Enrichment includes exposure to the humanities through possible inter-disciplinary approaches. Creative projects, oral presentations, in-depth reading and discussions, combined with individual exploration of student academic interests constitute the enrichment factor.

*UC a-g approved for "b"*

## **ENGLISH 11 P**

Grade 11, two semesters

**PREREQUISITE:** None

**COURSE DESCRIPTION:** This college preparatory course requires students to read and write critically on selected American works. Students will read, discuss, analyze and write using a variety of strategies. Writing in particular will focus on refinement and development of sophistication that will lead into senior year preparation of writing for college success. Students will continue to develop oral proficiency through in-class presentations.

*UC a-g approved for "b"*

## **AP ENGLISH LANGUAGE & COMPOSITION**

Grade 11, two semesters

**PREREQUISITE:** Application, Sophomore English teacher recommendation and student/parent request.

**COURSE DESCRIPTION:** This course parallels the English 11 P curriculum with the extended use of complete texts and materials designed for the special needs of the college-bound student. Enrichment and extension will continue to be inter-disciplinary. Passage of Advanced Placement exam at end of course will allow advanced placement and college credit upon entering a college or university that accepts AP scores.

*UC a-g approved for "b"*

## **EXPOSITORY READING AND WRITING COURSE**

Grade 12, two semesters

**PREREQUISITE:** Placement by student/parent request.

**COURSE DESCRIPTION:** The goal of the Expository Reading and Writing Course is to prepare college-bound seniors for the literacy demands of higher education. This yearlong, rhetoric-based course develops advanced proficiency in expository, analytical, and argumentative reading and writing. Written assessments and holistic scoring guides conclude each unit. This course will also focus on essential, analytical, grammatically correct writing skills enabling the student to pass placement exams and begin collegiate English in non-remedial, freshman level courses.

*UC a-g approved for "b"*

## **AP ENGLISH LITERATURE**

Grade 12, two semesters

**PREREQUISITE:** Application, Junior English teacher recommendation, and student/parent request

**COURSE DESCRIPTION:** The AP English Literature and Composition

course is designed to engage students in the careful reading and critical analysis of imaginative literature. Students will read and analyze textual and supplementary materials that show the development of contributions of various authors and the significant literary movements, as well as become acquainted with a variety of literary criticisms. Enrichment and extension will continue to be inter-disciplinary where possible. Creative projects, oral presentations, in-depth reading and analysis, writing and discussions that are qualitatively different and quantitatively expansive will be provided. Passage of Advanced Placement exam at end of course will allow advanced placement and college credit upon entering a college or university that accepts AP scores.

*UC a-g approved for "b"*

### **ELD 1**

Grades 9-12, two semesters  
**PREREQUISITE:** District placement tests/Teacher recommendation  
**COURSE DESCRIPTION:** This English Language Development course is designed to assist minimally proficient non-English speakers become proficient in the English language. ELD 1 is designed to help students who demonstrate a minimal degree of English proficiency. May be taken for a total of four semesters for credit.

### **ELD 2**

Grades 9 -12, two semesters  
**PREREQUISITE:** District placement tests/Teacher recommendation  
**COURSE DESCRIPTION:** This English Language Development course is designed to assist minimally proficient non-English speakers become proficient in the

English language. ELD 2 is designed to help students who demonstrate a minimal degree of English proficiency.

### **ELD 3**

Grades 9-12, two semesters  
**PREREQUISITE:** District placement tests/Teacher recommendation  
**COURSE DESCRIPTION:** This English Language Development course is designed to assist the maximally proficient non-English speaker gain final remediation and confidence in the usage of English in order to mainstream into the core English program. ELD 3 is designed to help students who demonstrate a moderate degree of English proficiency. ELD 3/Advanced is for students who are in their second year of ELD 3. The course includes emphasis in reading, writing, speaking, and study skills.

### **ELD 4**

Grades 9-12, two semesters  
**PREREQUISITE:** District placement tests/Teacher recommendation.  
**COURSE DESCRIPTION:** This English language development course is designed to help limited-English speakers become proficient in the English language. Particular emphasis focuses on helping students meet the "a-g" requirements for college. This course includes instruction in reading, writing, speaking, listening, and analyzing skills needed for those who plan to attend a four-year university. ELD 4 is designed to help students reach re-designation status.

## **SOCIAL STUDIES**

### **WORLD HISTORY P**

Grade 10, two semesters  
**PREREQUISITE:** none  
**COURSE DESCRIPTION:** This course follows the California State Framework with an emphasis on modern World History. The intent of this course is to illustrate the diversity and similarity of civilizations and cultures throughout history; and shows how such cultural differences and resemblances are relevant to students today. An emphasis will be placed on the development of democratic ideals and the integration on the humanities into the curriculum, i.e. art, music, and literature.

*UC a-g approved for "a"*

### **WORLD HISTORY GATE**

Grade 10, two semesters  
**PREREQUISITE:** Students are nominated and screened for admission to GATE program. Parental permission required.  
**COURSE DESCRIPTION:** This course parallels the World History P curriculum with use of texts and materials designed for the special needs of the talented student. There will be an emphasis on cross-curricular instruction with the Science and English GATE courses. Enrichment will include exposure to all of the humanities and technology and will provide the opportunities for independent exploration of individual interests.

*UC a-g approved for "a"*

### **AP WORLD HISTORY**

Grade 10, two semesters  
**PREREQUISITE:** Application and acceptance into the AP World History program will be based on a screening matrix.

COURSE DESCRIPTION: The AP World History course content is structured around the investigation of five course themes and 19 key concepts in six different chronological periods, from approximately 8000 B.C.E. to the present.

*UC a-g approved for "a"*

## **U.S. HISTORY P**

Grade 11, two semesters

PREREQUISITE: Reading at or above grade level or teacher recommendation.

COURSE DESCRIPTION: This course follows the California State Framework with an emphasis on twentieth century America. It will examine the major turning points in American history in the twentieth century as they reflect continuity and change from the nation's beginnings. Special attention is given to the framing of the Constitution as background for understanding the contemporary constitutional issues raised throughout the course. After connecting with past learnings, the course continues through the Progressive Age, the Jazz Age, Great Depression, WWII, the Cold War, Hemispheric Relationships, Civil Rights Movement, and American Society in Post-War Era, to the United States in recent times.

*UC a-g approved for "a"*

## **AP U.S. HISTORY**

Grade 11, two semesters

PREREQUISITE: Application and acceptance into the AP U.S. History program will be based on a screening matrix.

COURSE DESCRIPTION: This course deals with the social, political, and economic history of the United States from its colonial development to the present. This course is designed to provide students with the analytical skills

and factual knowledge necessary to deal critically with the problems and materials in U.S. History.

*UC a-g approved for "a"*

## **GOVERNMENT P**

Grade 12, one semester

PREREQUISITE: Senior standing  
COURSE DESCRIPTION: This course is designed to blend theoretical and pragmatic approaches to the study of politics. These approaches will focus upon the origins and operation of international, national, state, and local government. In addition, a strong emphasis will be placed upon knowledge of the origins and development of our federalist and republican form of government. Furthermore, a focus on democratic values in relationship to student responsibilities will be implemented.

*UC a-g approved for "a"*

## **AP GOVERNMENT**

Grade 12, one semester

PREREQUISITE: Senior standing. Application and acceptance into the program using the AP/Honors screening matrix.

COURSE DESCRIPTION: The intent of this one semester course is to increase understanding of the American political system, its framework, traditions, and values. This course is concerned with the nature of the American political system and its development over the past two centuries. We will examine in detail the processes and institutions through which the political system functions, as well as some of the public policies which these institutions establish, as well as how these institutions implement these policies.

*UC a-g approved for "a"*

## **ECONOMICS P**

Grade 12, one semester

PREREQUISITE: Senior standing

COURSE DESCRIPTION:

Economics is the study of how people make a living. Often some of the most basic ideas of our own democratic capitalism are least understood. A student will learn about many of the financial problems that confront citizens in everyday life. The courses will consist, in part, of some of the following areas: basic economic ideas, consumer problems, the operation of stock markets, and the operation of corporations and big business.

*UC a-g approved for "g"*

## **AP MACROECONOMICS**

Grade 12, one semester

PREREQUISITE: Senior standing. Application and acceptance using the honors screening matrix.

COURSE DESCRIPTION: It is an analytical and lecture based course designed to give students an in-depth understanding of Economics in general and Macro Economics, specifically. The course is designed to engage the student in higher order thinking strategies, which will enable them to become involved citizens who are effective, competent, self-directed learners.

*UC a-g approved for "g"*

## **MATHEMATICS**

### **FOUNDATIONS MATH**

Grades 9-10, two semesters

PREREQUISITE: None

COURSE DESCRIPTION: Basic course content includes a remediation of basic skills to include that of decimals, fractions, integers, order of operation, exponents, area and perimeter, percents, data analysis, evaluation



of algebraic expressions and simple algebraic equations. Upon successful completion, students will be adequately prepared to advance to Algebra 1 P.

### **APPLIED ALGEBRA**

Grades 11-12, two semesters

PREREQUISITE: None

OTHER INFORMATION: A one-year, non-college prep course. Meets KHSD graduation requirements. Covers the state's 25 Algebra Standards. May not be repeated for credit.

COURSE DESCRIPTION: This is a non-college preparatory algebra course intended to fulfill California's algebra requirement for graduation; it therefore covers the twenty-five California Algebra I standards. The course should also be structured with embedded CAHSEE preparation as needed. This course does not meet the University of California entrance requirements.

### **ALGEBRA 1 P**

Grade 9, two semesters

PREREQUISITE: Teacher recommendation.

COURSE DESCRIPTION: Algebra 1P is a traditional first-year Algebra course. Symbolic reasoning and calculations with symbols are central in algebra. Through the study of algebra, a student develops an understanding of the symbolic language of mathematics and the sciences. In addition, algebraic skills and concepts are developed and used in a wide variety of problem-solving situations. This course will be supplemented with computer and/or graphic calculator activities.

*UC a-g approved for "c"*

### **ALGEBRA 10-12 P**

Grades 10-12, two semesters

PREREQUISITE: Teacher recommendation or successful completion of Foundations 2 with a "C" or better.

COURSE DESCRIPTION: Algebra 10-12 P is a traditional first-year Algebra program. This course includes the introduction and development of the mathematical concepts of the variable, expressions, and equations. The curriculum will include simplifying and factoring expressions (including radicals), solving and graphing linear and quadratic equations, and applying these concepts to real life situations. This course will be supplemented with computer and/or graphic calculator activities.

*UC a-g approved for "c"*

### **GEOMETRY 9 GATE**

Grade 9, two semesters

PREREQUISITE: A grade of "B" or better in an approved first-year Algebra course and teacher recommendation. *\*Student eligibility determined by district criteria.*

COURSE DESCRIPTION: This is a comprehensive course in the study of Euclidean Geometry of planes and solids. The course covers theorems and proofs, and their applications in relation to points, lines, planes, triangles, parallelograms, circles, spheres, prisms, pyramids, cones, cylinders and the general polyhedron. Attention is given to helping students see how experimentation, induction and deduction must supplement each other in scientific reasoning. Students will engage in enrichment activities.

*UC a-g approved for "c"*

### **GEOMETRY 10 P**

Grades 10-12, two semesters

PREREQUISITE: A grade of "C" or better in an approved first-year Algebra course

COURSE DESCRIPTION: The geometry skills and concepts developed in this course include definitions, postulates and theorems of plane and solid figures. Emphasis will be placed on learning how to solve problems pertaining to geometry figures. Aside from learning these skills and concepts, students will develop their ability to construct formal, logical arguments and proofs in geometric settings and problems.

*UC a-g approved for "c"*

### **APPLIED GEOMETRY**

Grades 11-12, two semesters

PREREQUISITE: A grade of "C" or better in an approved first-year Algebra course

COURSE DESCRIPTION: This non-college prep course covers the twenty-two California Geometry standards with an emphasis on concepts, skills, and applications. Geometry concepts are developed through a variety of representations and hands-on materials in order to allow access to all students. This course does not meet the University of California entrance requirements.

### **ADVANCED ALGEBRA GATE**

Grade 10, two semesters

PREREQUISITE: A grade of "B" or better in an approved first year Algebra and Geometry course.

COURSE DESCRIPTION: This course provides a study of the structure of the systems of real and complex numbers. Beginning with the axioms for real numbers, the systems are developed in a logical sequence. The course advances through the ideas of natural numbers, integers, rational numbers, real numbers and functions and an introduction to complex numbers. An emphasis is placed on solving problems using algebraic expressions.

*UC a-g approved for "c"*

## **ADVANCED ALGEBRA P**

Grades 11-12, two semesters

**PREREQUISITE:** A grade of "C" or better in an approved first year Algebra and Geometry course.

**COURSE DESCRIPTION:** This discipline complements and expands the mathematical content and concepts of algebra I and geometry. Students who master algebra II will gain experience with algebraic solutions of problems in various content areas, including the solution of systems of quadratic equations, logarithmic and exponential functions, the binomial theorem, and the complex number system.

*UC a-g approved for "c"*

## **MATH ANALYSIS P**

Grades 11-12, two semesters

**PREREQUISITE:** Grade of "C" or better in Advanced Algebra

**COURSE DESCRIPTION:** Basic course content includes the review of advanced algebra, functions, graphs, analytic geometry, trigonometry, vectors, determinants, sequence and series, elementary probability, limits, and the introduction to calculus. A TI-*n*spire graphing calculator is recommended.

*UC a-g approved for "c"*

## **MATH ANALYSIS HP**

Grade 11, two semesters

**PREREQUISITE:** Advanced Algebra and a "B" or better average in previous math classes, and application and acceptance into the program using the honors screening matrix.

**COURSE DESCRIPTION:** This course parallels the Math Analysis P curriculum, but involves greater in-depth exploration of the topics plus coverage of several units that are not dealt with in the standard Math Analysis curriculum. The

students are expected to be able to stay on top of a rather rigorous homework schedule and participate in sophisticated mathematical discussions. Successful completion of the course (honors/weighted...)

*UC a-g approved for "c"*

## **PRE-CALCULUS HP DE**

Grade 12, two semesters

**PREREQUISITE:** "C" or better in Advanced Algebra, Geometry, and Algebra.

**COURSE DESCRIPTION:** This course provides the rigorous approach students will need or college level. Students will use graphing calculators and modern computer graphics to analyze, solve, visualize, and extend mathematical concepts learned in previous courses. The purpose of this course is to achieve in depth understanding of topics taught in prerequisite courses while preparing the students for Calculus. Dual enrollment course with CSU, Bakersfield.

*UC a-g approved for "c"*

## **STATISTICS P**

Grade 12, two semesters

**PREREQUISITE:** Advanced Algebra and a "B" or better average in previous math classes.

**COURSE DESCRIPTION:** The purpose of the course in Statistics is to introduce students to the major concepts and tools for collection analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, planning a study, anticipating patterns using probability and simulation, and statistical inference.

*UC a-g approved for "c"*

## **AP STATISTICS**

Grade 12, two semesters

**PREREQUISITE:** Successful completion of Advanced Algebra

**COURSE DESCRIPTION:** The purpose of the AP course in Statistics is to introduce students to the major concepts and tools for collection analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, planning a study, anticipating patterns using probability and simulation, and statistical inference.

*UC a-g approved for "c"*

## **AP CALCULUS AB**

Grade 12, two semesters

**PREREQUISITE:** Math Analysis HP and a "B" or better average in previous math classes.

**COURSE DESCRIPTION:** AP Calculus is the Calculus AB program as outlined by the College Board. It covers the major topics of functions, limits, derivatives and integrals. Students are required to take the Calculus AB exam in the spring. Time will be devoted to reviewing for this exam. A TI-*n*spire Graphing Calculator is recommended.

*UC a-g approved for "c"*

## **CONSUMER MATH**

Grade 12, two semesters

**PREREQUISITE:** None

**COURSE DESCRIPTION:** The course will go over fundamental mathematical concepts such as basic orders of operation, real numbers, percent, measurement, fractions, decimals, problem-solving, ratios and proportions. Also covered are critical thinking skills, algebraic formulas, calculator usage, graphing, probability and statistics. Topics to be covered are taxes, personal finance, purchasing and budgeting, spending, food, diet, health, fitness, housing, insurance, transportation, investment and retirement. The course features examples in a problem-solving format that allows

students to use mathematical skills in consumer situations.

## SCIENCE

### **EARTH SCIENCE P**

Grade 9, two semesters

**PREREQUISITE:** Math and English college prep placement.

**COURSE DESCRIPTION:** Earth Science is a one-year course in which the following topics are included: Astronomy, Geology, Meteorology, Oceanography, Biogeochemical Cycles and Climatology. The course of study is referenced to the Kern High School and California Science Content Curriculum Standards and the California Science Framework.

*UC a-g approved for "g"*

### **BIOLOGY P**

Grade 10, two semesters

**PREREQUISITE:** None

**COURSE DESCRIPTION:** This laboratory course will present an in-depth study of biochemistry, cellular biology, systems biology, genetics, and ecology. Labs will be supplemented with lecture/discussion, selected readings, guest speakers, and field trips.

*UC a-g approved for "d"*

### **BIOLOGY GATE**

Grade 10, two semesters

**PREREQUISITE:** Meets District G.A.T.E. eligibility criteria.

**COURSE DESCRIPTION:** Biology GP is an advanced-level Biology course designed to provide the Biology GP course content with additional enriching lab/lecture experiences stressing molecules and cells, genetics and evolution, taxonomy, and ecology.

*UC a-g approved for "d"*

### **CHEMISTRY P**

Grade 11, two semesters

**PREREQUISITE:** Completion of Algebra 1 P. Concurrently enrolled in Geometry or Advanced Algebra.

**COURSE DESCRIPTION:** This course is structured to meet the graduation requirements, the California State framework, and prepare students for college science experiences.

Laboratory experiences, the use of technology in the laboratory will be explored, and problem-solving will all be an integral part of this course. Topics covered will be the classification of matter, structure of the atom, stoichiometry, gas laws, chemical bonding and acids-bases.

*UC a-g approved for "d"*

### **CHEMISTRY HP**

Grade 11, two semesters

**PREREQUISITE:** Application and acceptance into the honors program using the honors screening matrix.

**COURSE DESCRIPTION:** The basic concepts of chemistry are stressed including atomic theory, periodic arrangements of the elements and structure of compounds. The relationship of chemistry to man and his environment is presented. This course provides more in-depth examination of these topics than the regular Chemistry P course.

*UC a-g approved for "d"*

### **PHYSICS P**

Grade 12, two semesters

**PREREQUISITE:** Successful completion of Chemistry and Advanced Algebra.

**COURSE DESCRIPTION:** This course is structured to meet the graduation requirements, the California State Framework, and prepare students for college science experiences. Topics include motion, rotational dynamics,

sound, light, electricity, relativity, and elementary particles. Laboratory and problem-solving skills will be developed.

*UC a-g approved for "d"*

### **PHYSICS HP**

Grade 12, two semesters

**PREREQUISITE:** Successful completion of Chemistry and Advanced Algebra.

**COURSE DESCRIPTION:** This course is structured to meet the graduation requirements, the California State Framework, and prepare students for college science experiences. Topics include motion, rotational dynamics,

sound, light, electricity, relativity, and elementary particles. Laboratory and problem-solving skills will be developed.

*UC a-g approved for "d"*

### **GEOLOGY HP**

Grade 12, two semesters

**PREREQUISITE:** Completion of Biology and Chemistry, permission of instructor

**COURSE DESCRIPTION:** This course is an introduction to the geologic processes affecting the solid earth and its atmosphere, oceans, and life forms. Emphasis will be placed on our knowledge of the evolution of the earth based on the rock and fossil record. Field and laboratory exercises will include the investigation of physical processes and materials, and the interpretation of environments and ecological associations. Dual enrollment course with CSU, Bakersfield

*UC a-g approved for "d"*

### **AP ENVIRONMENTAL SCIENCE**

Grade 12, two semesters

**PREREQUISITE:** Completion of Biology and Chemistry, application to AP program

**COURSE DESCRIPTION:** This course is designed to introduce students to the study of environmental science which is an interdisciplinary science that uses concepts and information from natural sciences such as ecology, biology, chemistry and geology and social sciences to understand 1) how the earth works, 2) how we are affecting the earth's environment, and 3) how to deal with the environmental problems we face.

*UC a-g approved for "d"*

## MODERN LANGUAGES

### **SPANISH 1 P**

Grades 9-12, two semesters

**PREREQUISITE:** None

**COURSE DESCRIPTION:** This course helps students develop competency in speaking, listening, reading and writing, with primary emphasis on oral communication and comprehension. Exposure to other cultures through various activities helps focus the student on cultural similarities as well as differences. A variety of communicative, multimedia, audio and video techniques provide students with opportunities to learn the language in many exciting and interesting real-life contexts.

*UC a-g approved for "e"*

### **SPANISH SPEAKING 1P**

Grades 9-12, two semesters

**PREREQUISITE:** Student must be a Spanish-speaker

**COURSE DESCRIPTION:** This course is designed for those students who already have an understanding of the Spanish language. Grammar, sentence

structure, writing, and reading are all emphasized. Students will also be exposed to various different types of cultures and various activities will be designed to help celebrate cultural events.

*UC a-g approved for "e"*

### **SPANISH 2 P**

Grades 10-12, two semesters

**PREREQUISITE:** Successful completion of Spanish 1P with a "C" or better or approval of teacher.

**COURSE DESCRIPTION:** This course continues to help students develop competency in speaking, listening, reading and writing, with emphasis on oral communication and comprehension. Exposure to other cultures through various activities helps focus the student on cultural similarities as well as differences. A variety of communicative, multimedia, audio and video techniques provide students with opportunities to learn the language in many exciting and interesting contexts.

*UC a-g approved for "e"*

### **SPANISH SPEAKING 2P**

Grades 10-12, two semesters

**PREREQUISITE:** Completion of Spanish-speaking 1P with a C or higher

**COURSE DESCRIPTION:** This course is designed to continue strengthening the language skills of the Spanish-speaking student. Students continue to expand their existent proficiency in Spanish, improving all skills. Particular emphasis is given to polishing writing skills.

*UC a-g approved for "e"*

### **SPANISH 3 P**

Grades 11-12, two semesters

**PREREQUISITE:** Successful completion of Spanish 2P with a "C" or better or approval of teacher.

**COURSE DESCRIPTION:** This course continues to increase proficiency in all skills with emphasis on grammatical accuracy, reading and writing skills. The student focuses on conversing, describing, and narrating in the present, past and future as well as expressing opinions and discussing hypothetical events. Exposure to other cultures through various activities helps focus the student on cultural similarities as well as differences. A variety of communicative, multimedia, audio and video techniques provide students with opportunities to learn the language in many exciting and interesting contexts.

*UC a-g approved for "e"*

### **AP SPANISH LANGUAGE**

Grades 11-12, two semesters

**PREREQUISITE:** Successful completion of Spanish 3P with a "B" or better and with an application and acceptance into the program using the AP screening matrix.

**COURSE DESCRIPTION:** This course continues to help the student expand proficiency in all skills while emphasizing reading, grammatical accuracy and writing skills. In particular, the student prepares to take the Advanced Placement Spanish Language Exam offered by the College Board. The student continues to focus on conversing, describing, and narrating in the present, past and future as well as expressing opinions and discussing hypothetical events. Exposure to other cultures through various activities helps focus the student on cultural similarities as well as differences. A variety of communicative, multimedia, audio and video techniques provide students with opportunities to learn the language in many exciting and interesting contexts.

*UC a-g approved for "e"*

## **AP SPANISH LITERATURE**

Grade 11-12, two semesters

**PREREQUISITE:** Successful completion of AP Spanish Language with a “B” or better or teacher recommendation and with an application and acceptance into the program using the AP screening matrix.

**COURSE DESCRIPTION:** AP Spanish Literature will prepare the serious Spanish student to pass the AP Spanish test with work equivalent to a fourth year college course. Students are required to take the AP exam. This course will have extensive practice in listening, writing, speaking and reading.

*UC a-g approved for “e”*

## **FRENCH 1P**

Grade 9-12, two semesters

**PREREQUISITE:** None

**COURSE DESCRIPTION:** This course helps students develop competency in speaking, listening, reading and writing, with primary emphasis on oral communication and comprehension. Exposure to other cultures through various activities helps focus the student on cultural similarities as well as differences. A variety of communicative, multimedia, audio and video techniques provide students with opportunities to learn the language in many exciting and interesting real-life contexts.

*UC a-g approved for “e”*

## **FRENCH 2P**

Grades 10-12, two semesters

**PREREQUISITE:** Completion of French 1P with a C or higher

**COURSE DESCRIPTION:** This course continues to help students develop competency in speaking, listening, reading and writing, with emphasis on oral communication and comprehension. Exposure to other cultures through various

activities helps focus the student on cultural similarities as well as differences. A variety of communicative, multimedia, audio and video techniques provide students with opportunities to learn the language in many exciting and interesting contexts.

*UC a-g approved for “e”*

## **FRENCH 3P**

Grades 11-12, two semesters

**PREREQUISITE:** Successful completion of French 2P with a “C” or better or approval of teacher.

**COURSE DESCRIPTION:** This course continues to increase proficiency in all skills with emphasis on grammatical accuracy, reading and writing skills. The student focuses on conversing, describing, and narrating in the present, past and future as well as expressing opinions and discussing hypothetical events. Exposure to other cultures through various activities helps focus the student on cultural similarities as well as differences. A variety of communicative, multimedia, audio and video techniques provide students with opportunities to learn the language in many exciting and interesting contexts.

*UC a-g approved for “e”*

## **AP FRENCH LANGUAGE**

Grades 11-12, two semesters

**PREREQUISITE:** Successful completion of French 3P with a “B” or better and with an application and acceptance into the program using the AP screening matrix.

**COURSE DESCRIPTION:** This course continues to help the student expand proficiency in all skills while emphasizing reading, grammatical accuracy and writing skills. In particular, the student prepares to take the AP French Language Exam offered by the College Board. The student

continues to focus on conversing, describing, and narrating in the present, past and future as well as expressing opinions and discussing hypothetical events. Exposure to other cultures through various activities helps focus the student on cultural similarities as well as differences. A variety of communicative, multimedia, audio and video techniques provide students with opportunities to learn the language in many exciting and interesting contexts.

*UC a-g approved for “e”*

## **AMERICAN SIGN LANGUAGE 1P**

Grades 9-12, two semesters

**PREREQUISITE:** None

**COURSE DESCRIPTION:** This course introduces students to the language of the deaf and hard of hearing, focusing on semantics (vocabulary), syntax (sentence/language structure), receptive and expressive language, deaf culture, and applications and uses of the language. This course counts toward the foreign language a-g requirement of the UC system.

*UC a-g approved for “e”*

## **AMERICAN SIGN LANGUAGE 2P**

Grades 10-12, two semesters

**PREREQUISITE:** Successful completion of ASL 1P with a “C” or better or approval of teacher.

**COURSE DESCRIPTION:** This course is designed for students to further develop proficiency in ASL usage. Students will advance their knowledge of the language through further study in vocabulary, sentence structure and usage, and deepen their understanding of deaf culture. They will place particular emphasis on conversational ASL, as well as practical applications of signing through required interpretations and presentational projects.

UC a-g approved for "e"

## PHYSICAL EDUCATION

The courses you take in physical education at Highland High School should provide you with several rewarding results. The knowledge you gain about various activities and games will be useful the rest of your life and you should have fun while learning and playing them. The activity you engage in should increase your strength, stamina, endurance, and general well being to assist you in a long and healthy life.

### PHYSICAL EDUCATION 9 CORE

Grade 9, two semesters  
PREREQUISITE: None  
COURSE DESCRIPTION: The 9 Core program will consist of various physical education activities, which may include: tennis, volleyball, tumbling, fitness, team and individual activities.

### PHYSICAL EDUCATION 10 CORE

Grade 10, two semesters  
PREREQUISITE: None  
COURSE DESCRIPTION: The 10 Core Program will consist of various approved physical education activities which may include: Weight Training, Lacrosse, team and individual sports.

### COED PE ELECTIVE

Grades 9-12, two semesters  
PREREQUISITE: Students must be of junior standing  
COURSE DESCRIPTION: This elective course will consist of various physical education

activities, which includes physical fitness training and weight lifting. It is an elective class which is open to all ninth through twelfth grade students who are interested in improving their level of fitness by using a variety of cross-training activities. The major emphasis of this class is to develop a personalized fitness plan for lifetime fitness. Students will be taught various activities such as weight training, agility and cardiovascular workouts, which will help them to achieve their personal fitness goals.

### PE 9-10 (MAKE UP)

Grades 11-12, two semesters  
PREREQUISITE: Students must be of junior standing  
COURSE DESCRIPTION: This is a course to help students make-up PE credit. This class will have the same activities as those in PE 9 and 10.

### MODIFIED PE 9-12

Grades 9-12, two semesters  
PREREQUISITE: Doctor and/or IEP recommendation.  
COURSE DESCRIPTION: The Modified Physical Education class is intended for those students who have physical handicaps which prevent them from reasonable participation in a regular P.E. class. The student's participation in specific activities is determined by a doctor and/or IEP.

## FINE ARTS

### BEGINNING ART

Grades 9-12, two semesters  
PREREQUISITE: None  
COURSE DESCRIPTION: This one-year course is structured to focus on the rudimentary understandings of the three major

components of visual art - form, subject matter, and context. By manipulation of both dry and wet media and by the investigation of relevant art history, philosophy, and criticism, students will gain a greater awareness of the scope and magnitude of the visual arts and the career possibilities that lie within the discipline.

UC a-g approved for "f"

### INTERMEDIATE ART

Grades 10-12, two semesters  
PREREQUISITE: None  
COURSE DESCRIPTION: This one-year course is structured to take a more in depth look at the varying facets of visual form, subject matter, and context. Students will refine production techniques and processes and will be asked to discover relationships between media and content. Students will make aesthetic judgments utilizing important historical and philosophical concepts based in appropriate context.

UC a-g approved for "f"

### ADVANCED ART

Grades 11-12, two semesters  
PREREQUISITE: None  
COURSE DESCRIPTION: This course is for students who are interested in challenging their skills, further developing their understanding of art, expanding their knowledge of aesthetic valuing, and art appreciation and art experiences through drawing, painting, and sculpture. Problem solving and development of imagination and creativity through concepts and experimentation will be emphasized. Art research, analysis, and critique, as well as extensive portfolio development will be integrated throughout the art process. Theory, technique, and critique will encompass art history, cultures, and modern America.

UC a-g approved for "f"

## **GRAPHIC ART**

Grades 10-12, two semesters

PREREQUISITE: Beg Art Preferred

COURSE DESCRIPTION: This course is designed for the continued development of the art elements: line, color, shape, and texture. Students will engage in a variety of projects hand-created as well as computer-generated. Students will develop projects that will introduce them to the principles of design including rhythm, balance, proportion, and variety. Students will study historical practices in visual communication and its effects on the development of contemporary practice of visual media.

*UC a-g approved for "f"*

## **BEGINNING GUITAR**

Grades 9-12, two semesters

PREREQUISITE: None

COURSE DESCRIPTION: Beginning Guitar is a class where students have the opportunity to learn to play acoustic guitar. Emphasis is placed on learning to read music as well as learning the basics such as proper playing technique, fingering technique, music reading, and basic performance skills.

## **ADVANCED & INT. BAND**

Grades 9-12, two semesters

PREREQUISITE: Proficient on a band instrument. Entrance by Director's permission.

COURSE DESCRIPTION: In the fall, the Advanced Band studies and performs the modern techniques of marching band through creative musical arrangements and show designs. The Marching Band performs at football games, parades, field competitions, and

other special events within the community.

*UC a-g approved for "f"*

## **ORCHESTRA**

Grades 9-12, two semesters

PREREQUISITE: Audition and approval of Instructor.

COURSE DESCRIPTION: The Orchestra is Highland High School's string performance ensemble. This group performs at concerts, festivals and other related events. Students need to be able to read music.

*UC a-g approved for "f"*

## **JAZZ BAND**

Grades 9-12, two semesters

PREREQUISITE: Audition and approval of Instructor.

COURSE DESCRIPTION: The Jazz Band is a performance ensemble that performs at concerts, festivals and other related events. Students need to be able to read music.

## **BAGPIPE BAND**

Grades 9-12, two semesters

PREREQUISITE: None

COURSE DESCRIPTION: Highland Pipe Band is designed for students who are interested in playing traditional bagpipes and/or pipe band percussion instruments. The Pipe Band performs at HHS events, parades, and other special events within the community.

## **PERCUSSION ENSEMBLE**

Grades 9-12, two semesters

PREREQUISITE: Audition and approval of Instructor

COURSE DESCRIPTION: The percussion ensemble performs alongside the marching band in the fall and with concert band in the spring.

## **COLOR GUARD**

Grades 9-12, two semesters

PREREQUISITE: Audition only

COURSE DESCRIPTION: The color guard (for the first semester) is an attached unit to the Marching Band and performs for football game half-time shows, field and street competitions. There is a mandatory Band Camp in late August, two weeks before school starts. The second semester prepares students for indoor court competition shows.

## **EXPLORING MUSIC**

Grades 9-12, two semesters

PREREQUISITE: None

COURSE DESCRIPTION: Exploring Music is designed for students who enjoy music but whom do not necessarily play an instrument or sing. This course will cover the fundamentals of music and the development of music from ancient times to the present. The spring semester will focus on music composition using traditional means as well as new technology in music. This course will include basic music theory and song writing.

*UC a-g approved for "f"*

## **MIXED CHOIR**

Grades 9-12, two semesters

PREREQUISITE: None

OTHER INFORMATION: A one-year elective course. May be entered at semester. This course meets KHSD graduation requirements and CSU/University of California "A-G" entrance requirements.

COURSE DESCRIPTION: Mixed Choir is a vocal ensemble for males and females. Instruction includes music theory, music history, vocal techniques, sight singing, performance decorum, and ensemble performance techniques.

The ensemble performs during the school year.

*UC a-g approved for "f"*

### **ADVANCED WOMEN'S CHOIR**

Grades 9-12, two semesters

**PREREQUISITE:** Previous singing experience

**COURSE DESCRIPTION:**

Advanced Women's Choir is an advanced vocal ensemble for females who have previous singing experience. Instruction includes music theory, music history, vocal techniques, sight singing, performance decorum, and ensemble performance techniques. The ensemble performs during the school year.

*UC a-g approved for "f"*

### **ADVANCED CHAMBER CHOIR**

Grades 9-12, two semesters

**PREREQUISITE:** Enrollment is by audition and/or Instructor permission.

**COURSE DESCRIPTION:**

Advanced Chamber Choir is an advanced vocal ensemble for males and females. Instruction includes music theory, music history, advanced vocal techniques, advanced sight singing, performance decorum, and advanced ensemble performance techniques. The ensemble performs frequently during the school year, including community service concerts, numerous festivals, and a spring tour.

*UC a-g approved for "f"*

### **THEATRE AND FILM 1**

Grades 9-12, two semesters

**PREREQUISITE:** None

**COURSE DESCRIPTION:** This college-preparatory course is designed to introduce the beginning student to basic theatrical techniques and modes of communication. Students will

develop a system of valuing for and criticism of theatre and film as a reader, participant and viewer. This course will emphasize the development of skills for theatrical performance, both stage and screen, as well as the history and culture of theatre and film to allow the student to personally experience dramatic literature.

*UC a-g approved for "f"*

### **THEATRE AND FILM 2**

Grades 10-12, two semesters

**PREREQUISITE:** Completion of Theatre/Film 1 with a "C" or better grade or better and/or Instructor's permission.

**COURSE DESCRIPTION:** This college-preparatory course is designed to teach experienced students techniques to further develop their acting skills through participation in basic acting exercises, classroom scenes, one-act plays, and competitions. The students will also learn the basic techniques utilized in directing other students, as well as establish a broader knowledge of dramatic literature.

*UC a-g approved for "f"*

### **THEATRE 3/4**

Grades 11-12, two semesters

**PREREQUISITE:** Completion of Drama 1 with a "C" or better grade or better and/or Instructor's permission.

**COURSE DESCRIPTION:** The goal of the class is to produce a full-length play or musical for an audience. This is a one-semester class which can be repeated for credit. Members of the class participate in every facet of production from design to construction to acting and must audition (actors) or apply (technical staff) and be chosen for the class.

# CAREER EDUCATION INFORMATION TECHNOLOGY

### **CAREER TECH**

Grade 9, one semester

**PREREQUISITE:** None

**COURSE DESCRIPTION:** This classroom-based, guidance experience teaches students a decision-making process that will help them envision and plan for a future that is productive, achievable, and stimulating. The culmination of this process is the development of a 10-year career and educational plan that will create a pathway for the student to reach their career and academic goals.

### **VIDEO GAME DESIGN 1/2**

Grades 9-12, two semesters

**PREREQUISITE:** None

**COURSE DESCRIPTION:** Semester 1: will focus on teaching the components and the programming skills that go into building games. Students will subsequently use those skills to build multiple games that test and enhance various coding skills. Semester 2: will feature game design and development that engages students in a real-life game development company. Throughout the course students act as a game development company to craft a game.

*UC a-g approved for "g"*

### **AP COMPUTER SCIENCE PRINCIPLES**

Grades 11-12, two semesters



PREREQUISITE: Video Game Design 1/2

COURSE DESCRIPTION: This course offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. It will give students the opportunity to use technology to address real-world problems and build relevant solutions. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science.

*UC a-g approved for "g"*

## AGRICULTURE

### AG GOVERNMENT P

Grade 12, one semester

PREREQUISITE: Senior standing, Agriculture student

COURSE DESCRIPTION: This course is designed to familiarize students with the structure and processes of the United States Government system. Students will learn about the responsibilities and rights of citizenship, voting, political parties, elections, campaigns, the Constitution, the branches of government, and the Bill of Rights. Students will also learn about state powers as it compares to the national government powers, and be introduced to world leadership. Students will study and discuss agricultural issues and what role the government system plays in the agricultural industry.

*UC a-g approved for "a"*

### AG ECONOMICS P

Grade 12, one semester

PREREQUISITE: Senior standing

COURSE DESCRIPTION: This class is a survey and basic understanding of the economics of the agriculture industry. It is an introduction to the economic aspects of agriculture and their implications to the agricultural producer, consumer and the food system. The management principles encountered in the day to day operation of an agricultural enterprise are stressed as they relate to the decision making process. Students will study and discuss agricultural issues and what role economic systems play in the agricultural industry.

*UC a-g approved for "g"*

### AG SOIL SCIENCE P

Grade 9, two semesters

PREREQUISITE: None

COURSE DESCRIPTION: This course explores the physical and chemical nature of soil as well as the relationships between soil, plant, animals and agriculture. Using knowledge of scientific protocols as well as course content, students will develop an Agriscience research project to be conducted throughout the first semester of the course. Additionally, students will develop and present a capstone soil management plan for agricultural producers, using the content learned throughout the course.

*UC a-g approved for "d"*

### AG BIOLOGY P

Grade 10, two semesters

PREREQUISITE: Satisfactory completion of Ag Soil Science; desire to remain in Ag program

COURSE DESCRIPTION: Using Agricultural topics as the vehicle, the course emphasizes principles, central concepts, and inter-relationships among the following topics: molecular and cellular aspects of life, energetics of life, growth and reproduction in plants,

animals, and microorganisms, animal and human environments, plant and animal genetics, taxonomy of modern agricultural plants and animals, the ecology of farming, nutrition, health and disease of agricultural plants and animals, and the cultural practices of selected crops and livestock of the area. The course is centered on an extensive laboratory component in order to connect the big ideas to the life science of Agriculture.

*UC a-g approved for "d"*

### ENVIRONMENTAL HORTICULTURE

Grades 9-12, two semesters

PREREQUISITE: None

COURSE DESCRIPTION: This course provides students with theories, principles, and standards related to EH Sciences. The curriculum will incorporate biological principles as they apply to plant and soil science. Students will utilize the school farm and will learn about the structure, growth process, propagation, physiology, growth media, biological competitors, and soil conservation advantages of organic farming.

*UC a-g approved for "d"*

### AG ANIMAL SCIENCE

Grades 11-12, two semesters

PREREQUISITE: Completion of Ag Biology

COURSE DESCRIPTION: To provide students with an opportunity to investigate different aspects of the animal care field by forming a link between classroom instruction and field experience which will promote critical thinking through project based student learning. To combine teamwork, technology and integrated academics that will enable students to understand the animal anatomy and physiology in health and disease. This course will also focus on leadership

development, business management through the principles of accounting and computer applications, and basic plant and animal husbandry technique. Students enrolled in this course will be encouraged to participate in leadership training activities, public speaking events and become active members in the FFA.

### **AGRICULTURE MECHANICS**

Grade 9-12, two semesters

PREREQUISITE: None

COURSE DESCRIPTION: The course is a year-long course which is designed to introduce the student to basic shop skills necessary to develop a well-rounded agricultural mechanics program. The course is also a pre-requisite to Advanced Ag Mechanics.

## **ENGINEERING AND DESIGN**

### **INTRODUCTION TO DESIGN (PLTW)**

Grade 9, two semesters

PREREQUISITE: Instructor Permission

COURSE DESCRIPTION: In this course, students use 3D solid modeling design software to help them design solutions to solve proposed problems. Students will learn how to document their work and communicate solutions to peers and members of the professional community. This course is designed for 9th or 10th grade students. The major focus of the IED course is to expose students to the design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards and technical documentation.

*UC a-g approved for "g"*

### **PRINCIPLES OF ENGINEERING (PLTW)**

Grade 10, two semesters

PREREQUISITE: Completion of IED; Instructor Permission

COURSE DESCRIPTION: This course provides an overview of engineering and engineering technology. Students develop problem-solving skills by tackling real-world engineering problems. Through theory and practical hands-on experiences, students address the emerging social and political consequences of technological change.

*UC a-g approved for "g"*

### **COMPUTER INTEGRATED MANUFACTURING (PLTW)**

Grade 11, two semesters

PREREQUISITE: Completion of POE; Instructor permission

COURSE DESCRIPTION: Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing. At the same time, it teaches student about manufacturing processes, product design, robotics, and automation. Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system.

*UC a-g approved for "g"*

### **ENGINEERING DESIGN AND DEVELOPMENT (PLTW)**

Grade 12, two semesters

PREREQUISITE: Completion of BE; Instructor permission

COURSE DESCRIPTION: This capstone course allows students to design a solution to a technical problem of their choosing. They have the chance to eliminate one of the "Don't you hate it when..."

statements of the world. This is an engineering research course in which students will work in teams to research, design, test, and construct a solution to an open-ended engineering problem. The product development lifecycle and a design process are used to guide and help the team to reach a solution to the problem. The team presents and defends their solution to a panel of outside reviewers at the conclusion of the course. The EDD course allows students to apply all the skills and knowledge learned in previous Project Lead The Way courses. The use of 3D design software helps students design solutions to the problem their team has chosen. This course also engages students in time management and teamwork skills, a valuable asset to students in the future. This course is designed for 12th grade students.

*UC a-g approved for "g"*

## **BIOMEDICAL SCIENCES**

### **PRINCIPLES OF BIOMEDICAL SCIENCES (PLTW)**

Grade 9, two semesters

PREREQUISITE: Instructor Permission

COURSE DESCRIPTION: Student work involves the study of human medicine, research processes, an introduction to bioinformatics, and the use of computer science, mathematics, and information theory to model and analyze biological systems. Students will investigate the factors that lead to the death of a fictional person. It is designed to provide an overview of all the courses in the Biomedical Sciences program.

*UC a-g approved for "d"*

### **HUMAN BODY SYSTEMS (PLTW)**

Grade 10, two semesters

**PREREQUISITE:** Completion of PBS; Instructor Permission

**COURSE DESCRIPTION:** Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis. Exploring science in action, students build organs and tissues on a skeletal Maniken®; use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases.

*UC a-g approved for "d"*

### **MEDICAL INTERVENTIONS (PLTW)**

Grade 11, two semesters

**PREREQUISITE:** Completion of HBS; Instructor Permission

**COURSE DESCRIPTION:** Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

*UC a-g approved for "d"*

### **BIOMEDICAL INNOVATIONS (PLTW)**

Grade 12, two semesters

**PREREQUISITE:** Completion of MI; Instructor Permission

**COURSE DESCRIPTION:** Students build on the knowledge and skills gained from previous courses to design innovative solutions for the most pressing health challenges of the 21st century. Students address topics ranging from public

health and biomedical engineering to clinical medicine and physiology. They have the opportunity to work on an independent project with a mentor or advisor from a university, medical facility, or research institution. *UC a-g approved for "d"*

## **MISCELLANEOUS**

### **ACADEMIC DECATHLON**

Grades 9-12, one semester

**PREREQUISITE:** Instructor permission

**COURSE DESCRIPTION:** Academic Decathlon is a large-scale study of multiple (10) subjects that combines cross curricular studies of material core to the high school as well as topics more common to college general breadth requirements. The specific areas of study are Math, Science, Economics, Language/Literature, Essay, Social Studies, Art, Music, Speech, and Interview. In every topic the basics, history, and then specifics of particular elements are studied. The depth of the material ranges from standard high school level to early college level.

### **AVID 1 - 4**

Grades 9-12, two semesters

**PREREQUISITE:** Students need to be committed to attending a 4-year university and meet criteria of being "in the middle."

**COURSE DESCRIPTION:** The Advancement Via Individual Determination Program (AVID) is designed for students who may be the first in the family to go on to college or are in the middle and have not previously succeeded in a college preparatory path for admission to four-year universities and colleges. Tutoring, writing, collaborative learning, interacting with guest speakers, reading, and

note-taking will be emphasized as well as college exploration.

*UC a-g approved for "g" – AVID 4 only*

### **HEALTH**

Grade 9, one semester

**COURSE DESCRIPTION:** The Health Education class is one semester in length. The main emphasis is placed on state mandated topics which are requirements for graduation. Selected areas of study include first aid; cardiovascular health maintenance; alcohol, chemical, tobacco, and drug abuse; transmission and avoidance of sexually transmitted diseases; fire safety and prevention; procedures for disaster safety; preventing common communicable diseases; personal hygiene; mental, physical and emotional health.

### **PUBLICATIONS**

Grades 9-12, two semesters

**PREREQUISITE:** None

**COURSE DESCRIPTION:** This course provides students with journalism skills and the ability to apply those skills to the actual production of a yearbook and school newspaper. Students will study several aspects of journalistic writing, marketing, photography, journalism law/ethics, copy writing, layout design, interview skills, editing, and thematic design. The purpose of the course is to produce high quality yearbook/newspapers.

*UC a-g approved for "g"*

### **LIBRARY SCIENCE**

Grades 11-12, two semesters

**PREREQUISITE:** Approval by Librarian

**COURSE DESCRIPTION:** Students assist the Librarian in various responsibilities within the Library and Textbook Room,

including shelving, inventorying, checking in/out of texts, etc.

### **ACCESS & PRE-ACCESS**

Grades 9, two semesters

**PREREQUISITE:** District placement tests.

**COURSE DESCRIPTION:** The Access course is designed for the student struggling with reading to learn. This reading skills-oriented course is specially designed to emphasize the reading and writing skills necessary for students to access grade-level text in all courses.

### **PSYCHOLOGY CP**

Grades 11-12, two semesters

**PREREQUISITE:** None

**COURSE DESCRIPTION:** Psychology is a two semester elective course offered to eleventh and twelfth grade students. Students will cover the content of an introductory psychology course as outlined by College Board. The course will include all major areas of thought in the field of psychology and the biological bases behind psychology.

*UC a-g approved for "g"*

### **AP PSYCHOLOGY**

Grades 11-12, two semesters

**PREREQUISITE:** None

**COURSE DESCRIPTION:** Psychology is a two semester elective course offered to eleventh and twelfth grade students. Students will cover the content of an introductory psychology course as outlined by College Board. The course will include all major areas of thought in the field of psychology and the biological bases behind psychology. It will be encouraged that the students take the Advanced Placement exam at the end of the course.

*UC a-g approved for "g"*

### **RECREATIONAL AND ATHLETIC LEADERSHIP**

Grades 9-12, two semesters

**PREREQUISITE:** 2.0 GPA

**OTHER INFORMATION:** This class meets weekly and includes evening event management.

**COURSE DESCRIPTION:** This course provides students an introduction to recreational athletics for intramural and interscholastic competitions. Students will organize, plan and work with others to grow in leadership skills. A service-learning component is integrated to foster reflection and growth. Instructor approval required.

### **STUDENT LEADERSHIP**

Grades 9-12, two semesters

**PREREQUISITE:** 2.0 GPA

**COURSE DESCRIPTION:** The responsibilities of students enrolled in this class include managing student-body finances, organizing and participating in student sponsored rallies, dances, clubs, and all co-curricular activities. Community and school service during non-school hours is a requirement of this class.

### **STUDENT STORE**

Grades 11-12, two semesters

**PREREQUISITE:**

Recommendation of counselor and approval of instructor

**COURSE DESCRIPTION:** The responsibilities of students enrolled in this class include managing student-body finances, organizing and participating in student sponsored rallies, dances, clubs, and all co-curricular activities. Community and school service during non-school hours is a requirement of this class.

### **STUDENT TUTOR**

Grades 11-12, two semesters

**PREREQUISITE:** 3.0 GPA or higher, counselor approval

**COURSE DESCRIPTION:** This course is designed to facilitate both teachers and students in the classroom. The student may elect to offer assistance in either a core subject or elective course in the master schedule. A student will apply to be a student tutor as per recommendation or counselor approval. Once student is given permission to enroll, the student must then go to the supervising faculty member for class assignment. The course is for those students who are considering teaching as a career. Students taking this course will be working as peer tutors and as helpers at elementary and junior high schools in this area. This will be an opportunity to experience teaching from the prospective of a teacher. Students considering taking this class must be a junior or senior and have a G.P.A. of 3.0 or better.

### **WORK EXPERIENCE**

Grades 11-12, two semesters

**PREREQUISITE:** work permit

**COURSE DESCRIPTION:** This course is designed for students that are employed and work, on the average, 16 hours or more per week. It is open to juniors and seniors, meets one day per week and offers 5 semester hours of credit. It is open for enrollment at the semester. A student can earn a total of 20 semester credits. The student must submit an employer evaluation and time card each grading period, faithfully attend class one day per week, complete the work-related written assignments and be an active participant in class discussions and informative presentations by guest speakers.

# SPECIAL EDUCATION DEPARTMENT

The Special Education program is for students who have learning problems related to an underlying handicap. Depending on the nature of the handicap, the student's performance in basic skills in reading, arithmetic, spelling, and writing in most cases must be below the level expected for his/her ability, age, grade, or their fellow students in the school.

Students are evaluated individually. The Eligibility team is made up of an administrator, special education teacher, parent, psychologist, child advocate, and other school personnel, as needed, to determine if a student is eligible for placement. An "Individual Education Program" is developed that is appropriate to the needs of the student.

## **MATH 1-2-3**

Grades 9-12, two semesters  
PREREQUISITE: Placement by Eligibility Team  
COURSE DESCRIPTION: This course is designed to enable the student to use all previously learned math skills and apply them to real life situations. Proper use and working of a calculator will be demonstrated. Weekly budgets will be kept and numerous examples for self-reliance will be presented.

## **ENGLISH 1-2-3**

Grades 9-12, two semesters  
PREREQUISITE: Placement by eligibility team  
COURSE DESCRIPTION: This course is designed to help students with their individual needs with regards to reading decoding,

reading fluency and reading comprehension as well as helping to improve upon their writing skills. This course parallels core curriculum and includes instruction in reading, comprehension, literature, improving vocabulary, spelling, and grammar, speaking and listening. Various techniques and methods will be used in order to allow the students to improve their reading skills.

## **TRANSITION**

Grades 11-12, two semesters  
PREREQUISITE: Placement by eligibility team  
COURSE DESCRIPTION: This course teaches students the mechanics of organization, time management, and study skills in an academically conducive environment. Test-taking, note-taking, and academic planning are on-going tasks for students enrolled in Transition.

## **STUDY SKILLS**

Grades 9-10, two semesters  
PREREQUISITE: Placement by eligibility team  
COURSE DESCRIPTION: This course teaches students the mechanics of organization, time management, and study skills in an academically conducive environment. Test-taking, note-taking, and academic planning are on-going tasks for students enrolled in Study Skills.

## **SOCIAL STUDIES**

Grades 9-12, two semesters  
PREREQUISITE: Placement by eligibility team  
COURSE DESCRIPTION: These courses cover content such as World History, U.S. History, Government and Economics. The courses parallel core curriculum.

## **SCIENCE**

Grades 9-12, two semesters  
PREREQUISITE: Placement by eligibility team  
COURSE DESCRIPTION: These courses cover content such as life science and physical science. The courses parallel core curriculum.

## **HEALTH**

Grades 9-12, two semesters  
PREREQUISITE: Placement by eligibility team.  
OTHER INFORMATION: Meets health requirement for graduation. This class uses differentiated instruction and curriculum strategies to meet the needs of students with learning disabilities as it follows the state standards for health.

## **SPECIAL DAY CLASSES**

Grades 9-12, two semesters  
PREREQUISITE: Placement by eligibility team.  
COURSE DESCRIPTION: These classes cover basic English, history, math, and vocational education. Students are expected to attend a career center their junior and senior years to gain on-the-job experience and be ready upon graduation.

## *ROC (Regional Occupational Center)*

**NOTE: ROC COURSES ARE AVAILABLE ONLY TO JUNIORS AND SENIORS.**  
If you are interested in taking a ROC class, see your counselor.

For a complete list of courses, go to:  
<http://roc.kernhigh.org/>