

# **Bear River** High School



Nevada Joint Union High School District  
Home of the Bruins!

## **COURSE CATALOG**

### **2018-2019**

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**11130 Magnolia Road**  
**Grass Valley, CA 95949**

# Bear River High School

Bear River is a small, comprehensive 4-year high school that serves approximately 650 students in grades 9-12. Built in 1986, it was designed to serve the residents of southern Nevada County, in its rural setting. Bear River High School was recognized as a California Distinguished School in 2001 and 2009, and a Gold Ribbon School in 2017. During the last five years, the school has become a model program for Professional Learning Communities implementing teacher collaboration, pyramids of intervention, and common assessments.

The **mission** of Bear River High School is to provide a positive learning environment, a variety of opportunities to develop a solid educational background, and the tools to enable students to become productive and adaptable members of an evolving society.

Our **vision** is one that encompasses students, staff, parents, and community working together to encourage responsibility, integrity, and an enthusiasm for learning. Additionally, our vision includes providing a variety of high quality educational opportunities by creating a dynamic school that continuously challenges all students and prepares them for the future.

Our educational offerings are designed to support student learning and to ensure the college and career readiness of all of our students. Please review the course options in this catalog carefully before making your selection, keeping in mind your long term goals. If you have any questions, please contact your counselor.

## Counselor Contact Information

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# Bear River High School Graduation Requirements

<u>Course Area</u>	<u>Credits</u>
4 Years English (1 or 1X, 2 or 2X, 3 or 3H, 4 or 4AP)	40
3 Years Mathematics (*must include Integrated Math 1 or Algebra 1)	30
3 Years Social Science (World History, US History, Econ/Government or AP Gov. or X/Honors or AP 's)	30
2 Years Science (1 year life science and 1 year physical science)	20
2 Years Physical Education (1 year Frosh PE and 1 year of the following: Aerobics, Dance, Weights, Basketball PE or play 2 seasons of a school sport is equivalent to 1 year of PE)	20
1 Year Visual or Performing Art or World Language or CTE (Clay, Draw/Paint, Photo, Ag. Mech, Band, Choir, Drama, Comm. Arts, Digital Design, Yearbook, Journalism, Tech Theater, Exploring Comp Sc, Spanish)	10
1 Year Frosh Tech / Health	10
Electives	60
<b>TOTAL REQUIRED CREDITS</b>	<b>220</b>

## SAMPLE FOUR-YEAR PLAN TO GRADUATE FROM BRHS

<p><b><u>FRESHMAN</u></b>            *English 1            *Math (Integrated Math 1 or Higher)            *Frosh PE            *Health / Tech            Elective            Elective</p>	<p><b><u>SOPHOMORE</u></b>            *English 2            *Math            *World History            Science            PE            Elective</p>
<p><b><u>JUNIOR</u></b>            *English 3            *Math            *US History            Science            Visual / Performance Art or Spanish            Elective</p>	<p><b><u>SENIOR</u></b>            *English 4            *American Government / Economics            Elective            Elective            Elective            Elective</p>

\*Required for Stated Grade Level

## UC/CSU “A-G” Admission Requirements\*

### A—History: 2 years

World History (required-10th grade)

U.S. History (required-11th grade)

American Government \*\* (1 semester-required-12th grade)

### B—English: 4 years

English I-IV years \*\*

### C—Mathematics: 3 years / 4 years recommended

Integrated Mathematics I (Algebra I)

Integrated Mathematics II (Geometry)

Integrated Mathematics III (Algebra II)

4th year options: ESM, Pre-Calculus, Adv. Math/Intro to Calculus\*\*, AP Calculus \*\*

### D—Laboratory Science: 2 years / 3 years recommended

Physical Science- Chemistry, AP Chemistry \*\* or Physics, AP Physics \*\*

Life Science- Biology, AP Biology \*\*, AP Environmental Science, or Ag. Biology

### E—World Language: 2 years/3 years recommended

Spanish 1, 2, 3, Spanish 4 AP

### F—Visual or Performing Arts : 1 year

Drawing, Clay, Photography, TV Video Production, Communication Arts, Digital Design

Choruses, Bands, Dance, Drama

### G—College Prep Elective: 1 year-examples: Psychology, Journalism, Economics, Environmental Horticulture Science, additional year of any of above a-f required courses

\* UC/CSU requirements alone do not meet NJUHSD graduation requirements.

\*\* Honors and Advanced Placement classes are recommended for the UC System.

- The CSU and the UC systems recommend that the student take more than the minimum requirements. The grade earned in college prep classes must be a “C” or higher to be accepted by the college. For the UC, 7 of the 15 required courses must be taken in the last two years of high school. For more information about a-g courses, see [www.californiacolleges.edu](http://www.californiacolleges.edu).

- NCAA Freshman eligibility standards require additional college prep courses. Please see your counselor for further information.

## **Agriculture & Industrial Technology**

Agriculture today is much more than farming. It's an advanced and highly technical field. It involves everything from computers to research and education, even satellites to watch the weather. Whatever your aspirations, enrolling in high school agriculture and FFA gives you valuable hands-on experience. Such involvement helps you develop communications and leadership skills, and even helps you decide which of the many agriculture career options is best for you. **2015 & 2016 NATIONAL CHAMPIONS!**

### **AG MECHANICS I**

Grade Levels: 9-12

Repetitions for Credit: No

Prerequisites: None

Graduation Credit: Elective-VPA/CTE/World Language

Ag Mechanics 1 is designed for students interested in a career in agricultural mechanics or metal technology. The class emphasizes hands-on learning through a series of projects in metal work including arc and gas welding, sheet metal work, hot and cold metal work, carpentry, and engine repair.

### **AG MECHANICS II**

Grade Levels: 10-12

Repetitions for Credit: No

Prerequisites: Ag Mechanics I.

Graduation Credit: Elective-VPA/CTE/World Language

Ag Mechanics 2 will provide students with additional understanding of agricultural mechanics and metal technology, and the use of metal fabricating machinery. This class is useful both for students seeking employment upon high school graduation in the field of mechanics and for students planning to continue their education. Emphasis is on the use of power machinery as well as arc welding, gas welding, mig welding and tig welding. Time is allowed for the construction of personal projects.

### **AG MECHANICS III & IV**

Grade Levels: 11-12

Repetitions for Credit: Yes

Prerequisites: Ag Mechanics II and upon instructor approval.

Graduation Credit: Elective-VPA/CTE/World Language

This is a class designed to meet the needs of the advanced Agricultural Mechanical student in individualized learning and project design. It reinforces construction skills and consumer math skills. Basic math principles are taught through a

series of individualized shop projects. Students will design and build Mechanical projects such as livestock equipment, outdoor furniture, trailers and truck beds.

### **AG CONSTRUCTION AND MECHANICS**

Grade Levels: 11-12

Repetitions for Credit: No

Recommended Preparation: Ag Mechanics 1-3, shop experience, building experience.

Prerequisite: 2 years math credit, & Algebra 1/Integrated Math 1, counselor & instructor approval.

Graduation Credit: 3rd year high school math.

Students will experience a wide variety of construction and engineering techniques, including, Construction skills; Concrete, Framing, Drywall, Roofing, Plumbing, and Electrical. Additionally, students will receive advanced Ag welding training. Students will use text book: Basic Principles for Construction. The book will guide them and reinforce the math concepts.

### **AGRICULTURAL SCIENCE I**

UC/CSU “G”

Grade Levels: 9-10

Repetitions for Credit: No

Prerequisites: None

Graduation Credit: Life Science

Agriculture I is a rigorous biological science course designed to introduce students to the diverse and exciting world of agriculture science. The curriculum will cover the areas of molecular and cellular structure of life, cellular metabolism and energy, heredity and genetic engineering, ecological issues and relationships, livestock body systems and metabolism, animal and plant disease control, evolutionary relationships, and new trends in agricultural technology. Included will be labs and experiments designed to challenge the most enthusiastic science students. Specific oral communication and leadership skills will be infused into class activities to prepare students for future success. FFA activities will be assigned and involvement in additional FFA events are strongly encouraged for first year Ag science students.

### **AGRICULTURAL SCIENCE II**

Grade Levels: 10-12

Repetitions for Credit: No

Prerequisites: Ag Science I or instructor’s approval.

This course is designed for continuing Ag students pursuing careers in the exciting and increasingly technological field of Agriculture. The fascinating field of animal science will be the focus of the curriculum. A comprehensive study of life’s processes in relation to the field of agriculture will be covered through analysis of cell structure and function, as well as livestock genetics, reproduction, and physiology. Premier leadership, personal growth and specific career development in a wide variety of competitive areas will be offered to challenge the critical thinking abilities of the most enthusiastic of students. Parliamentary procedure, prepared and extemporaneous speaking, job interviewing, evaluation of Ag products and animals, Ag sales strategies, creating a marketing plan, and group discussion will prepare students for real life challenges. FFA activity participation will be required.

### **AGRICULTURAL SCIENCE III**

Grade Levels: 10-12

Repetitions for Credit: Yes

Prerequisites: Ag Science 2 or instructor’s consent

This course is designed for continuing Ag students pursuing careers in the exciting and increasingly technological field of Agriculture. The fascinating field of plant and crop science will be the focus of the curriculum. A comprehensive review of cell structure and function, as well as plant genetics, reproduction, and physiology will be emphasized. Entomology, fiber crop production, and new trends in agriculture are several more of the diverse areas to be covered. Premier leadership, personal growth and specific career development in a wide variety of competitive areas will be offered to challenge the critical thinking abilities of the most enthusiastic of students. FFA activity participation will be required.

### **INTEGRATED AGRICULTURE BIOLOGY**

**UC/CSU “D”**

Grade Levels: 9-12

Repetitions for Credit: No

Prerequisites: One year of introductory Agricultural science or instruction in basic science principles at the 8th or 9th grade level.

Graduation Requirement: Life Lab Science

Agricultural Biology is a one year, laboratory science course, designed for the college-bound student with career interests in agriculture. The course will emphasize understanding the principle ideas and concepts through lecture, discussion, and student presentations of the following topics: Molecular and cellular aspects of life, chemical and structural basis of life, cellular metabolism and energetics, genetics and inheritance, DNA structure and gene technology, evolution and natural selection, ecological relationships between plants, animals, and humans, taxonomy, interrelationships of kingdoms of organisms, and physiology and anatomy of major animal phylums. The course is centered around an extensive laboratory component (including microscope work and dissection of organisms) in order to connect the big ideas of life science with agriculture applications, earth and physical science principles, and other curricular areas including written and oral reporting. FFA or community service activity assignments will be given to enhance citizenship and leadership qualities.

### **AGRICULTURAL COMMUNICATIONS**

Grade Levels: 11-12

Repetitions for Credit: Yes

Prerequisites: Ag Science 1 or Ag Biology

Ag Communication is a course designed for college bound students with an interest in agriculture. Principles of speech writing, and formal presentation in competition will be emphasized. Topics will include: advanced parliamentary procedure and debate; 6-8 minute prepared speech presentation with written manuscript and documentation; extemporaneous speech outlining and presentation; discussion group dynamics and consensus seeking; marketing plan development; Ag product sales strategies; livestock and horse evaluation using organized oral reasons; resume and cover letter writing and job interviewing skills. Emphasis will be on keeping students at the cutting edge of technological advancements in agriculture, and promoting positive growth in each student, FFA and community activity assignments will be given to enhance citizenship and leadership skills.

### **ENVIRONMENTAL HORTICULTURE SCIENCE**

**UC/CSU “G”**

Grade Levels: 10-12

Repetitions for Credits: NO

Prerequisites: Recommended Integrated Math 1 and Agriculture Science.

Graduation Requirement: Physical Science

The Introduction to environmental horticulture science course exposes students to the art and science of growing plants, shrubs, trees, flowers, fruits and vegetables. Students will be provided information regarding the care and propagation of plants, flowers, trees, and shrubs. There will be a special emphasis on those used for decorative purposes and human consumption. In doing so, the course will cover a wide variety of topics, including greenhouse and nursery operations, soils and media mixtures, fruit and vegetable production, turf/golf course management, interior and exterior plantscaping, irrigation systems, weed and pest control and floral design.

## VISUAL ARTS

### INTRODUCTION / INTERMEDIATE CERAMICS

UC/CSU “F”

Grade Levels: 10-12

Repetitions for Credit: No

Prerequisites: None for Intro., C or above for Intermediate

Graduation Requirement: Elective-VPA/CTE/World Language-Fine Art

This course will introduce the student to ceramic and sculptural techniques, materials, tools, and vocabulary. Major emphasis will be on the use of clay and other sculptural materials as a means of personal expression. Projects will be created using various hand-building, wheel throwing and paper mache techniques. This course will further develop and improve student skills in the use of materials as a means of individual expression. Major emphasis will be on creative design. Class requests student donation for materials.

### ADVANCED CERAMICS

UC/CSU “F” or “G”

Grade Levels: 11-12

Repetitions for Credit: 2 years

Prerequisites: Intermediate Clay, B or above

Graduation Requirement: Elective-VPA/CTE/World Language-Fine Art

Students will complete independent work using individually designed projects, under the supervision of the instructor. Emphasis will be on the development of a unique style of work. Class requests student donation for materials.

### DRAWING & PAINTING WORKSHOP A & B

UC/CSU “F”

Grade Levels: 9-12

Repetitions for Credit: No

Prerequisites: None

Graduation Requirement: Elective-VPA/CTE/World Language-Fine Art

For the student who is exploring his/her interests in the arts, this class offers many kinds of drawing and painting activities using pencil, pen and ink, felt tip pen, tempera, paint, charcoal pencils, watercolor, oil pastels, and combinations of the above. Subjects include tools and terms of design, advertising art, rules of perspective, and studying various media. Outdoor sketching, and still life setups and rendering will also be included. Class requests student donation for materials.

### ADVANCED DRAWING & PAINTING C

UC/CSU “F” or “G”



Grade Levels: 10-12

Repetitions for Credit: Yes

Prerequisites: Workshop A & B with B or above or permission of instructor.

Graduation Requirement: Elective-VPA/CTE/World Language-Fine Art

Students will further develop and expand skills learned in introductory classes. Career possibilities will also be discussed. Class requests student donation for materials.

### **AP STUDIO ART: 2-D DESIGN PORTFOLIO**

**UC/CSU “F” or “G”**

Grade Levels: 11-12

Repetitions for Credit: Yes

Prerequisites: Workshop A/B with a grade B or above or permission of instructor.

Graduation Requirement: Elective-VPA/CTE/World Language-Fine Art

The AP® Studio Art Portfolio course is designed for students who are seriously interested in the practical experience of art and wish to develop mastery in the concept, composition, and execution of their ideas. AP Studio Art is not based on a written exam; instead, students submit portfolios or evaluation at the end of the school year. In building the portfolio, students experience a variety of concepts, techniques, and approaches designed to help them demonstrate their abilities as well as their versatility with techniques, problem solving, and ideation. Students also develop a body of work for the Concentration section of the portfolio that investigates an idea of personal interest to them. Class requests student donation for materials.

### **INTRO & INTERMEDIATE PHOTOGRAPHY**

**UC/CSU “F”**

Grade Levels: 10-12

Repetitions for Credit: No

Prerequisites: None

Graduation Requirement: Elective-VPA/CTE/World Language-Fine Art

First semester is an introduction to photographic materials and printmaking. Students will learn basic photographic skills through darkroom techniques and 35mm camera assignments and an introduction to digital photographic work and Photoshop software. As well as experimental work with pinhole camera and 120 film and printing. Second semester is intended to further the student's sense of photographic design as well as develop techniques of correct exposure, processing and printing. Class requests student donation for materials.

**Reminder! You need 1 Fine Art OR 1 World Language OR CTE to graduate, but you need 1 year of a Fine Art & 2 years of a World Language for college requirements!**

## **DIGITAL COMMUNICATION PATHWAY**

### **COMMUNICATION ARTS**

**UC/CSU “F”**

Grade Levels: 9-12

Repetitions: Yes

Prerequisites: No

Graduation Requirement: Elective-VPA/CTE/World Language-Fine Art

This introductory course not only provides an overview of the most important aspect of our age—communication—it also goes in-depth with a look at the history of film starting with Charlie Chaplin’s silent films, progressing through the “talkies,” and ending with a study of the innovations in modern film blockbusters. Students will learn how to make their own digital videos using techniques common to both visual and performing arts. No prior knowledge of media production is required. Creative writers, dramatic performers, computer geeks, and camera buffs will all find this course both entertaining and educational as they develop competence in the media arts.

### **ADVANCED VIDEO PRODUCTION**

**UC/CSU “F”**

Grade Levels: 10-12

Repetition for Credit: Yes

Prerequisites: Communication Arts or permission of instructor.

Graduation Requirement: Elective-VPA/CTE/World Language-Fine Art

This course is for both advanced video production students wishing to further their knowledge and skill base as well as for students new to the field of digital arts who want to work in a studio setting producing programming appropriate for television broadcasting. This class is also open to students wanting to learn - D animation. Although there is no prerequisite, students are encouraged to take Communication Arts (video production) first if scheduling allows.

### **INTRODUCTION TO DIGITAL DESIGN**

*pending*

**UC/CSU “F”**

Grade Levels: 10-12

Repetitions for Credits: No

Prerequisites: Frosh Tech

Graduation Requirement: Elective-VPA/CTE/World Language-Fine Art

This is an introduction to fundamental concepts and techniques of art and design on the computer. It includes basic computer skills, digital image capture, image manipulation, drawing, page layout, and preparation of images for print, web or multimedia. Students develop creative projects using current graphics software.

## **PERFORMING ARTS**

### ***-BAND-***

#### **SYMPHONIC BAND**

**UC/CSU “F”**

Grade Levels: 9-12

Repetitions for Credit: Yes

Prerequisites: Proficiency on one or more band instruments

Graduation Requirement: Elective-VPA/CTE/World Language-Performing Art

This course is designed for instrumentalists with at least one year experience who are interested in further developing their musical skills. Groups perform intermediate and advanced level concert band literature; includes Marching and Pre Band.

#### **JAZZ BAND**

Grade Levels: 9-12

Repetitions for Credit: Yes

Prerequisites: Concurrent enrollment in Symphonic Band and/or instructor’s permission. Audition required.

Graduation Requirement: Elective-VPA/CTE/World Language-Performing Art

Students learn the principles of jazz performance, including style, interpretation, jazz theory and improvisation. Several performing opportunities throughout the school year.

### ***-CHORAL-***

#### **WOMEN’S CHORUS**

**UC/CSU “F”**

Grade Levels: 9-12

Repetitions for Credit: Yes

Prerequisites: None

Graduation Requirement: Elective-VPA/CTE/World Language-Performing Art

In this course the student will study secondary school choral literature as well as vocal and choral techniques, music theory and history. Performing opportunities.

#### **MEN’S CHORUS**

**UC/CSU “F”**

Grade Levels: 9-12

Repetitions for Credit: Yes

Prerequisites: None

Graduation Requirement: Elective-VPA/CTE/World Language-Performing Art

In this course the student will study secondary school choral literature as well as vocal and choral techniques, music theory and history. Many performance opportunities

#### **VOCAL JAZZ ENSEMBLE**

**UC/CSU “F”**

Grade Levels: 11-12

Repetitions for Credit: Yes

Prerequisites: Chorus or consent of director.

Graduation Requirement: Elective-VPA/CTE/World Language-Performing Art

This is an upper-level course for advanced musicians who have had at least two years of high school vocal experience. Emphasis will be placed on strengthening vocal technique, sight singing, music theory, and history. Students will sing a variety of medium to advanced level literature from all stylistic periods, including vocal jazz. There will be many performance opportunities throughout the year. This ensemble will at times sing with the Mixed Chorus under the title of Concert Chorale. All members of this ensemble are expected to practice daily outside of class and be listening regularly to choral recordings

**-DANCE-**

**THEATRICAL DANCE 1**

**UC/CSU “F”**

Grade Levels: 9-12

Repetition for Credit: Yes

Prerequisites: None

Graduation Requirement: Elective-VPA/CTE/World Language-Performing Art

This class is run as any dance studio class would be: a warm up of technical dance steps with stretches, moving steps across the floor, and with the bulk of class time spent working on dance combinations that add steps each day. The style is jazz, with all its varieties, but some ballet and modern concepts that apply to jazz will be practiced. The objective of the class is to train and shape dance bodies. Performances are not mandatory but participation in some form (backstage or production) is encouraged. The attire: Dancewear as approved by instructor. Students will also be expected to complete written assignments if they expect to receive UC academic elective credit.

**THEATRICAL DANCE 2**

**UC/CSU “F”**

Grade Levels: 10-12

Repetition for Credit: Yes

Prerequisites: Open by Audition Only

Graduation Requirement: Elective-VPA/CTE/World Language-Performing Art

This class continues the development of intermediate dance skills on a more advanced level. More emphasis is placed on techniques, performance, and choreography. Students are expected to participate in auditions and performances in and out of class. Students will also be expected to complete written assignments. This course may be used to fulfill the fine art requirement or the 2nd year P.E. requirement for graduation. \* Class requests student donation for materials.

## ARTS, MEDIA, ENTERTAINMENT PATHWAY

### THEATER ARTS

UC/CSU “F”

Grade Levels 9-12

Repetition for Credit: YES

Prerequisites: None

Graduation Requirement:VPA/CTE/World Language-Performing Art

Theater Arts is a survey course that covers all aspects of theater. The course will cover acting technique such as vocal expression, facial expression, stage movement, emotional expression, and methods of character creation and analysis. Improvisational games and techniques will also be taught and played. All elements of theatrical production will be studied, discussed, and learned, such as set, costume, and lighting design; house management; publicity; stage management; and dramaturgy. An in-depth unit on theatrical history will also be included. Students will study comedy and tragedy and create their own scenes using the elements of comedy. Students will learn the beginnings of theatrical tradition from the time of primitive man to the present. Theatrical historical periods will include Greeks, Romans, Medieval, Shakespeare, American Theater (including Musical Comedy), Japanese theater, Bollywood, and modern theater. Dramatic structure will also be studied, and students will write a variety of original scripts for scenes, monologues, and short plays.

### TECHNICAL THEATRE I

*pending* UC/CSU “G”

Grade Levels: 9-12

Repetitions for Credit: Yes

Prerequisites: None

Graduation Requirement:VPA/CTE/World Language-Performing Art

Technical Theatre: A hands on course that not only teaches students what happens behind the scenes for productions and events, but also provides many opportunities to create/design/work shows on campus. Learn lighting, sound, set, scenic painting, marketing, and more! This class is structured in a manner that matches current industry standards for Technical Theatre, which creates the ideal opportunity for both college bound and non-college bound students that may be interested in pursuing technical theatre or theatrical design as a future occupation.

### TECHNICAL THEATRE 2 Special Effects

*pending* UC/CSU “F”

Grade Levels: 10-12

Repetitions for Credit: Yes

Prerequisites: Technical Theatre 1 or Teacher Approval

Graduation Requirement:VPA/CTE/World Language-Performing Art

A hands on course that focuses on theatrical design. This class not only theory based, but also provides many opportunities to design for events on campus (not mainstage). Learn the basics of design and how to draft to scale. This class is structured in a manner that matches current industry standards for Theatrical Design and strictly follows USITT standards. The drafting portion of the class does include math. This class is designed for both college bound and not college bound students that may be interested in pursuing technical theatre or theatrical design as a future occupation.

## **COMPUTER SCIENCE PATHWAY**

### **FROSH TECHNOLOGY**

Grade Level: 9

Repetitions for Credit: No

Prerequisites: Taught in conjunction with Frosh Health

Graduation Requirement: Mandatory for all 9th graders, 1 semester course.

Students will learn useful and practical applications of the Microsoft Office Suite, Word, Excel, and Powerpoint. Students will create web pages and learn to make presentations and students learn proper format for essays and letters. This course is recommended for college preparation as well as vocational and personal use.

### **EXPLORING COMPUTER SCIENCE**

UC/CSU “G”

Grade Levels: 9-12

Repetitions for Credit: No

Prerequisites: Integrated Mathematics I or concurrent enrollment

Graduation Requirement: Elective

Exploring Computer Science teaches the creative, collaborative, interdisciplinary, and problem-solving nature of computing with instructional materials that feature an inquiry-based approach to learning and teaching. As part of this course, students will delve into real world computing problems that are culturally-relevant, and address social and ethical issues while delivering foundational computer science knowledge to students. Students will engage in several in-depth projects to demonstrate the real-world applications of computing.

### **AP COMPUTER SCIENCE PRINCIPLES**

UC/CSU “G”

Grade Levels: 11-12

Repetitions for Credit: No

Prerequisites: None

Graduation Requirement: Elective

AP Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. With a unique focus on creative problem solving and real-world applications, AP Computer Science Principles prepares students for college and career.

### **AP COMPUTER SCIENCE A**

UC/CSU “G”

Grade Levels: 10-12

Repetitions for Credit: No

Prerequisites: Concurrent Enrollment- Integrated Math III

Graduation Requirement: Elective

This course introduces fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems.

## ENGLISH

### **-REQUIRED COURSES-**

All students must take English 1, 2, 3, & ERWC to satisfy the four year English requirements. English elective courses do not count towards the four year English requirement. All regular, X, Honors & AP English classes meet the UC/CSU college entrance requirement.

### **ACADEMIC LITERACY**

Grade level: 9

Repetitions for Credit: No

Prerequisites: Teacher recommendation

Academic Literacy is a class designed to enhance and improve the reading achievement of students in English 1. The course involves the application of active reading strategies, vocabulary and grammar instruction, the reinforcement of basic essay writing and time for sustained silent reading. Individualized reading and writing remediation will be taught by means of Read 180, a district-mandated reading incentive and support program.

### **ENGLISH 1**

**UC/CSU “B”**

Grade Level: 9

Repetitions for Credit: No

Prerequisites: None

Graduation Requirement: Yes

English 1 emphasizes the improvement of writing skills through well-developed paragraphs and basic essays, develops effective oral communication through discussions and presentations, enhances the appreciation of literature through analysis and interpretation, teaches beginning research skills, and provides instruction in written and oral language conventions.

### **ENGLISH 1X**

**UC/CSU “B”**

Grade Level: 9

Repetitions for Credit: No

Prerequisites: None, but Instructor approval requested.

Graduation Requirement: Yes- in place of English 1

This accelerated English course emphasizes the same curriculum as English 1. However, students read additional works of greater difficulty and will be expected to achieve an advanced level of coherence, unity and critical thinking in their work.

### **ENGLISH 2**

**UC/CSU “B”**

Grade Level: 10

Repetitions for Credit: No

Prerequisites: None

Graduation Requirement: Yes

English 2 is designed to reinforce the skills learned in English 1 and to further develop skills in writing, oral communication, literary analysis and interpretation, research skills, and written and oral language conventions.

### **ENGLISH 2X**

**UC/CSU “B”**

Grade Level: 10

Repetitions for Credit: No

Prerequisites: English 1X and/or teacher recommendation

Graduation Requirement: Yes- in place of English 2

English 2X emphasizes the same curriculum as English 2. However, students read additional works of greater difficulty and will be expected to achieve an advanced level of coherence, unity and critical thinking in their work.

**ENGLISH 3**

**UC/CSU “B”**

Grade Level: 11

Repetitions for Credit: No

Prerequisites: None

Graduation Requirement: Yes

English 3 is designed to reinforce the skills learned in English 2 and to further develop skills in writing, oral communication, literary analysis and interpretation, research skills and written and oral language conventions. This course has an emphasis on American Literature.

**AP ENGLISH LANGUAGE**

*pending*

**UC/CSU “B”**

Grade Level: 11

Repetitions for Credit: No

Prerequisites: English 2X and/or teacher recommendation

Graduation Requirement: Yes- in place of English 3

AP English Language focuses on rhetoric. Students will study language as a persuasive tool and examine the integral relationships of writer, context, audience, and argument. Focusing primarily on nonfiction works, students will write formally and informally through revised essays, journals, collaborative writing, and in-class responses as well as produce expository and argumentative compositions that introduce complex ideas developed through cogent and sustained reasoning.

**ERWC**

**UC/CSU “B”**

Grade Level: 12

Repetitions for Credit: No

Prerequisites: None

Graduation Requirement: Yes

Students in this yearlong, rhetoric-based course develop advanced proficiency in expository, analytical, and argumentative reading and writing. The cornerstone of the course - the assignment template - presents a process for helping students read, comprehend, and respond to nonfiction and literary texts.

**ENGLISH 4 AP**

**UC/CSU “B”**

Grade Level: 12

Repetitions for Credit: No

Prerequisites: English 3H and/or teacher recommendation.

Graduation Requirement: Yes- in place of ERWC

English 4 AP emphasizes the curriculum necessary for the successful completion of the AP English Literature exam. Students who are successful on this exam can receive college credit in English. In addition students are required to complete written components of their senior project. Students receive an extra grade point when computing their GPA for this class. Students in English 4AP are encouraged to take the College Board Advanced Placement Test in May.

**FILM AS VISUAL LITERATURE**

*pending*

**UC/CSU “B”**



Grade Levels: 11-12

Repetitions for Credits: No

Prerequisites:None

Graduation Requirement: No-Elective only-does not substitute for regular English classes

We are all bombarded with film images daily from the internet, television, films, and even gas pumps. Where did this all start, and how can students be better equipped to understand film's impact on their lives and our society as a whole? Through writing, watching films, and creating film concepts, storyboards, and scripts, students will look at film in a completely different way after viewing this course.

## **DIGITAL MEDIA ARTS PATHWAY**

### **ONLINE MEDIA**

**UC/CSU "G"**

Grade Levels: 9-12

Repetitions for Credit: No

Prerequisites: None

Graduation Requirement:Elective-VPA/CTE/World Language-Fine Art

Formerly Journalism in the Digital Age, Online Media students will work towards developing their voice using different writing styles in a writer's workshop environment where they will be reflective and evaluative of their own writing, as well as, of their peers' in order to improve their journalistic skills and editing techniques. This course is meant to prepare students to be staff writers on the online school newspaper, The Bear River Current; while having a greater understanding of how journalism has evolved during the 21st Century. Students will understand the importance of journalism in a democratic society and discuss ethical issues that can arise while covering topics in the community. Digital journalism opens our reporting up to a worldwide public audience and can take many forms such as text, podcasts, videos, discussion threads, and blogs. Student writers will report on stories that recognize the diversity of their community. Students are exposed to a variety of journalism and types of writing that appears in newspaper, magazines and digital media. Students will recognize and write sound, effective, responsible journalism that includes interviews, scripting and publishing. The class will also include basic photography skills, layout and design strategies.

### **PUBLICATIONS DESIGN I**

**UC/CSU "G"**

Grade Levels: 9-12

Repetitions for Credit: Yes

Prerequisites: None

Graduation Requirements: Elective-VPA/CTE/World Language-Fine Art

Formerly Yearbook, this project-based course is designed to provide practical, specific journalistic experiences with the main, end result the production of a professional yearbook. The course goals focus on the expository aspect of the reading

and reporting (oral and written), extensive practice in writing that goes through a thorough editing and revision process as well as substantial reading of expository sources and other materials that develop imperative skills and rigorous training on written themes including body copy, interviewing, captions and headlines, and visuals including photography and designing layouts. Members are expected to assume the responsibilities and self-discipline necessary to contribute to the success of such an organization. Students deal with and learn to understand the ethical dimensions of life while they search for information and gain a respect and understanding of the viewpoints others hold. Student will need to evaluate information and convey intricate or multifaceted information to the student body. Yearbook teaches real-world skills such as, meeting deadlines, teamwork, working with advanced and professional technology, communication skills, and independent thinking skills.

**INTRODUCTION TO DIGITAL DESIGN I**

*pending*

**UC/CSU “F”**

Grade Levels: 10-12

Repetitions for Credit: Yes

Prerequisites: Frosh Tech

Graduation Requirements: Elective-VPA/CTE/World Language-Fine Art

This is an introduction to fundamental concepts and techniques of art and design on the computer. It includes basic computer skills, digital image capture, image manipulation, drawing, page layout, and preparation of images for print, web or multimedia. Students develop creative projects using current graphics software.

## WORLD LANGUAGE

“In order to succeed in the 21st century, today’s students need to develop linguistic and cultural literacy, including academic knowledge, proficiency in English and in several of the world’s languages and cultures.” (The World Language Content Standards for California Public Schools) What better way to start than with Spanish, a language spoken throughout the state of California and the 3rd most spoken language in the world! At Bear River High School our Spanish Program includes Spanish 1 through Spanish 4 AP Language. Our current college preparatory program is proficiency based and our students are expected to reach a certain level of competency as they learn to describe the world around them and engage in meaningful conversation. Each level of study increases the depth of vocabulary and the breadth of expression based on the Language Learning Continuum.

### SPANISH 1

UC/CSU “E”

Grade Levels: 9-12

Repetitions for Credits: No

Graduation Requirement: Elective-VPA/CTE/World Language-World language

Daily activities in Spanish 1 revolve around the 4 skills of language; Listening, Speaking, Reading and Writing:

1. **Listening** to the instructor and recordings in Spanish, often in fast, conversational tones. Students must understand enough to answer questions with no other resources.
2. **Speaking** to practice and demonstrate mastery of specific sounds and structures of the language. Assessment is performed daily and by formal and informal presentation, without use of notes.
3. **Reading** words, sentences and authentic texts, advertisements, and articles. As students build their knowledge of vocabulary and sentence structure, readings become more complex and content more cultural.
4. **Writing** many words, exercises, and paragraphs in Spanish and in English. Students put acquired vocabulary and sentence structure to work in their own words. Any translations used are expected to follow rules of grammar in Spanish or in English, depending on the direction of the translation.

### SPANISH 2

UC/CSU “E”

Grade Levels: 9-12

Repetitions for Credit: No

Prerequisites: Spanish 1 (Grade of C or better)

Graduation Requirement: Elective-VPA/CTE/World Language-World language

Level 2 provides opportunity for students to reinforce their ability to produce words and phrases, while communicating about the world around them: sports, travel, culture, family, home, chores, daily routine. Our students will understand

and produce language in both the present and past tenses. This intermediate study of the language will promote a wider use of the language as the student begins telling stories and holding conversations about the topics previously mentioned. Students will be expected to participate in class on a daily basis in Spanish. Participation will also include maintaining a notebook on a daily basis and providing evidence of organization and daily study skills to build vocabulary.

**SPANISH 3**

**UC/CSU “E” or “G”**

Grade Levels: 10-12

Repetitions for Credit: No

Prerequisites: Spanish 2 (Grade of C or better)

Graduation Requirement: Elective-VPA/CTE/World Language-World language

Level 3 is designed to further develop the student’s speaking, writing, listening and reading skills. Students will utilize a comprehensive vocabulary to communicate ideas about such topics as friends, family, food, hobbies, sports, the arts, apparel, travel, occupations, literature, politics and geography in the present well as the past tenses, including the indicative and subjunctive expression. This advanced study of the language will provide students with a vast vocabulary, greater depth of language skills and more confidence to communicate with ease. Students will be expected to participate in class on a daily basis in Spanish. Participation will also include maintaining a notebook on a daily basis and providing evidence of organization and daily study skills to build vocabulary.

**SPANISH 4**

**UC/CSU “E” or “G”**

Grade Levels: 11-12

Repetition for Credit: No

Prerequisites: Spanish 3 (Grade of C or better)

Graduation Requirement: Elective-VPA/CTE/World Language-World language

Level 4 emphasizes creative writing, literature, history of the language, and language as a reflection of the culture. Students will present original works and research cultural influences and traditions. Students will be expected to participate in class on a daily basis in Spanish. Participation will also include maintaining a notebook on a daily basis and providing evidence of organization and daily study skills to build vocabulary.

**SPANISH 4AP**

**UC/CSU “E” or “G”**

Grade Levels: 11-12

Repetitions for credit: No

Prerequisites: Spanish 3 or 4 with “B” or better

Graduation Requirement: Elective-VPA/CTE/World Language-World language

AP Spanish 4 is similar to Spanish 4 with an additional focus on grammar and literature in order to prepare for the AP Spanish exam.

**EDUCATION PATHWAY**

**SOCIAL JUSTICE THEORY**

**UC/CSU “G”**

Grade levels: 9-12

Repetitions for Credit: No

Prerequisites: No

Graduation Requirement: Elective

In this course students will thoroughly analyze the characteristics and actions of socially active leaders, and apply those characteristics and actions in a research project where students analyze a need in their community and the possible ways to address that need.

## MATHEMATICS

### INTEGRATED MATHEMATICS I

UC/CSU “C”

Grade Level: 9-12

Repetition for credit: Yes, 2 years (20 credits)

Prerequisite: None

Graduation Requirement: Yes, California State Algebra 1/Integrated Mathematics I requirement

Integrated Math I is the first course of a three course series which introduces entry level topics in Number & Quantity, Algebra, Functions, Geometry and Statistics & Probability. This one year long course satisfies the Common Core Standards for Integrated Math I. It strengthens and builds on the students’ prior knowledge in middle school math. This course focuses on algebraic expressions, linear functions, quadratic functions, some basic exponential functions, exponents, polynomials, solving equations, geometric congruence, proof and construction methods, finding volumes, areas, descriptive statistics, and connecting algebra and geometry through reasoning and proof as well as real life applications.

### INTEGRATED MATH II A/B

UC/CSU “C”

Grade Levels: 10-12

Repetitions for Credit: No

Prerequisite: Completion of Integrated Math I

Graduation Requirement: Yes

First course of a two year Integrated II program designed for students who need a slower pace and algebra / number skills review. This course focuses on quadratic expressions, equations, functions, geometry, statistics and probability.

### INTEGRATED MATH II C/D

UC/CSU “C”

Grade Levels: 10-12

Repetitions for Credit: No

Prerequisite: Completion of Integrated Math I or Integrated Math II AB

Graduation Requirement: Yes

Second course of a two year Integrated II program designed for students who need a slower pace and algebra / number skills review. This course focuses on quadratic expressions, equations, functions, geometry, statistics and probability.

### INTEGRATED MATHEMATICS II

UC/CSU “C”

Grade Levels: 10-12

Repetitions for Credit: No

Prerequisite: Completion of Integrated Math I with a C or better

Graduation Requirement: Yes

This course introduces the student to logic and sound reasoning as used in mathematics through the study of geometric figures and their relationships and of proofs as applied in Euclidean plane geometry.

### **INTEGRATED MATHEMATICS III**

UC/CSU “C”

Grade Levels: 10-12

Repetitions for Credit: No

Prerequisites: Integrated Mathematics II

Graduation Requirement: Yes

Integrated Mathematics III is the third course in a three course college preparatory series. In this course, students will integrate and apply the mathematics they have learned from their earlier courses. The focus of Integrated III is; Number and Quantity, Algebra, Functions, Geometry, Trigonometry, and Statistics and Probability.

### **EAP (ESM) SENIOR MATH**

UC/CSU “C”

Grade Levels: 12

Repetitions for Credit: No

Prerequisites: Integrated Mathematics III

Graduation Requirement: Yes

EAP Senior Math is a problem-solving based curriculum with emphasis on collaborative student work. This course is designed to strengthen mathematical foundation and to prepare students to be successful in college level math. Students will learn problem solving strategies, improve math skills, learn about finances and investments, and be better prepared to bypass remedial math courses in college.

### **PRE-CALCULUS**

UC/CSU “C” or “G”

Grade Levels: 10-12

Repetitions for Credit: No

Prerequisite: Completion of Algebra 2 / Integrated Math III with a grade of C or better.

Graduation Requirement: Elective

Pre-Calculus is a continuation of the concepts developed in the Integrated series. Trigonometry is developed fully, Complex Numbers, Polar Equations, Functions, and Limits form the Foundation for Calculus.

### **AP CALCULUS**

UC/CSU “C” or “G”

Grade Levels: 11-12

Repetitions for Credit: No

Prerequisites: Pre-Calculus and teacher approval

Graduation Requirement: Elective

AP Calculus (AB) is a course offered to college bound students. It is an advanced study of algebra, trigonometry, geometry, complex numbers and elementary functions. In addition, the course will include a study of differential and integral calculus. The course includes material normally covered in a semester of college study. The AP Calculus exam will be administered to interested students at the end of the year

## **NON-DEPARTMENTAL**

### **ACADEMIC FOUNDATIONS FOR SUCCESS**

Grade levels: 9-12

Repetitions for Credit: No

Prerequisites: No

Graduation Requirement: Elective

Students will develop study skills necessary for academic success in high school. Coursework will include instruction on the importance of attendance, organization, time management, test taking strategies and record keeping. A major goal is to assist students while building their self-confidence. Students are invited to participate based on recommendations from counselors and school staff. Class size is limited.

### **FROSH HEALTH**

Grade Level: 9

Repetitions for Credit: No, 1 semester course

Prerequisites: None

Graduation Requirement: CA state graduation requirement.

This course focuses on transitioning issues related to high school. Students examine decision-making skills related to study skills, work habits, goal setting, and communication skills. This course also will cover health-related issues such as drugs, alcohol, tobacco, family life education and public safety.

### **LIBRARY SERVICES**

Grade Levels: 10-12

Repetitions for Credit: 2 years (20 Credits)

Prerequisites: Instructor's Approval

Graduation Requirement: Elective

Library Service Aides do a variety of tasks that help the professional staff maintain a clean and useful library. Some tasks are simple, such as straightening bookshelves and displays. Other tasks require more knowledge and training, such as re-shelving materials, processing magazines and books, and checking inventory lists. The ability to put items in order by alphabet and decimal number is required for many of these jobs. Artistic talent is not required, but if you possess it, you may be asked to create displays or posters. Since being a Library Aide counts as a regular academic course with a letter grade, you will do some academic work as well as your regular library duties.

### **PEER TUTORING**

Grade Levels: 10-12

Repetitions for Credit: Yes, 2 years (20 credits)

Prerequisites: Good academic background in a tutoring subject and counselor recommendation

### Graduation Requirement: Elective

Topics covered will be self discovery, individual learning styles and strategies, the fundamentals of communication, test taking procedures and effective listening methods. The student will orient self to the tutor program by being involved in tutoring observations, role playing and learning ways to assess his/her own tutoring sessions. The student will learn how to be receptive to individual learning modalities and diversity issues and adapt tutoring strategies to fit the needs of the “tutee”. Students will be required to devote 10 hours as Peer Tutors during Bruin Hour and/or after school.

### **RECONNECTING YOUTH**

Grade levels: 9-12

Repetitions for Credit: No

Prerequisites: Counselor/Teacher Approval

Graduation Requirement: Elective

Reconnecting Youth is a California State approved “indicated prevention” and science based program designed to assist at-risk youth in achieving three major goals: increased school performance, increased drug use control and increased mood management. Students are invited to participate based on recommendations from counselors and school staff. Class size is limited.

### **SCHOOL SERVICE**

Grade Levels: 11-12

Repetitions for Credit: Yes, 2 Years (20 credits)

Prerequisites: Counselor/Teacher approval

Graduation Requirement: Elective

Students work in various jobs around the school as a Teacher’s Assistant. Students receive pass/fail grade and must have instructor’s permission. Only 5 credits can be given per semester in this class. Up to 20 credits of school service can be applied toward the 220 credits required for graduation, or 10 library service and 10 school service with a maximum of 20 credits. Approval will be granted based on availability, students academic performance and need.



## **PHYSICAL EDUCATION**

Freshmen must enroll in Physical Education. The physical education program has groups of units, four to nine weeks in length, offered at two levels, one for the freshmen and one for the sophomores, juniors and seniors. The freshmen will be enrolled in a wide variety of classes providing introductory level instruction. Sophomores, juniors and seniors will be given a choice of many different classes. Seniors are given top priority in overcrowded classes and juniors are next in priority. The above units will be offered according to equipment and facilities available and the weather. (Twenty credits in physical education are required for graduation.) After the freshman year, students who participate in a full season of interscholastic competition may waive 5 credits of P.E. each season up to a total of 10 credits

### **BASKETBALL PE**

Grade Levels: 10-12

Repetitions for Credit: Yes

Prerequisites: None

Graduation Requirement: Yes, 2nd year PE.

This class consists of conditioning of basketball skills, weight room participation, and basketball drills.

### **WEIGHT TRAINING**

Grade Levels: 10-12

Repetition for Credit: Yes

Prerequisites: None

Graduation Requirement: Yes, 2nd year PE.

This class consists of weight training and conditioning.

This class is recommended for any student who desires to work hard towards muscular development and cardiovascular conditioning.

### **ADVANCED WEIGHT TRAINING**

Grade Levels: 10-12

Repetition for Credit: Yes

Prerequisites: Freshman P.E.

Graduation Requirement: Yes, 2nd year PE.

This course is designed to help develop an athlete to his/her maximum potential by focusing on strength, explosiveness, agility, flexibility, and the ability to work at maximum output. Curriculum includes weight-training, competitive games, testing of strength, flexibility, agility and explosiveness, speed and development of self-esteem and team spirit.

### **UPPER LEVEL ACTIVITIES**

Grade Levels: 10-12

Repetition for Credit: Yes

Prerequisites: Freshman P.E.

Graduation Requirement: Yes, 2nd year PE.

This course is designed to introduce students to more advanced skill development in the activities that they had during their freshman year. Emphasis will be placed on developing skills for lifetime sports

## **DANCE 1**

Grade Levels: 9-12

Repetition for Credit: No

Prerequisites: None

Graduation Requirement: Yes, 2nd year P.E. credit.

In this class, students will use their creativity and improve their dance technique including coordination, rhythm, memory, strength, imagination and awareness of standard steps and a variety of dance styles. Using an interdisciplinary approach, emphasis is placed on developing basic dance skills, 10 Nevada Union High School Course Bulletin 2015-2016 Physical Education Continued from previous page aesthetic and cultural appreciation and increase self-esteem. During the third and fourth quarters, focus will be on preparing choreography for public performance. This course can be taken 10th, 11th, or 12th grade. Freshmen who take dance will receive Performing Arts credit only as all freshmen must take P.E. Note: Students may be required to purchase materials.

## **DANCE 2**

Grade Levels: 9-12

Repetition for Credit: No

Prerequisites: Yes, Audition

Graduation Requirement: Yes, 2nd year P.E. credit.

This class continues the development of basic dance skills on a more advanced level. More emphasis is placed on technique, performance, and choreography. Students are expected to participate in auditions and performances in and out of class and will complete a portfolio of their skills and repertory. Students will also be expected to complete written assignments. Dance fulfills the university "F" requirement.

## **SCIENCE**

Note: The high school graduation requirement in Science includes one year of a physical science and one year of life science.

### **INTEGRATED SCIENCE I**

**UC/CSU “G”**

Grade Levels: 9-12

Repetitions for Credit: No

Prerequisite: None

Graduation Credit: Life or Physical Science (Not a Lab Science)

This is an introductory science course integrating concepts in life, earth, and physical sciences. This course is designed to help students develop basic science skills that will prepare them for advanced lab science classes. The fall semester focuses on an introduction to science methods as well as basics of chemistry and ecology as related to our state and local environment. The second semester focuses on physics and earth science and their significance in California’s dynamic geological processes. The year will conclude with discussion of mining and earth’s resources within the local community. This course fulfills one year of a physical or life science requirement for high school graduation.

### **INTEGRATED SCIENCE II**

**UC/CSU “G”**

Grade Levels: 9-12

Repetition for Credit: No

Prerequisite: None

Graduation Credit: Life or Physical Science (Not a Lab Science)

This introductory science course is designed to expose students to science concepts and skills that align with California State Science Standards and prepare them to be successful in more challenging science courses. Integrated Science II is the second course taught in a 2 year rotation, with Integrated Science I, so that students may fulfill their high school science graduation requirements with 20 units of both physical and life science. Topics in earth science, biological science, and physical science will be covered in an integrated approach using a wide variety of instructional methods.

**-LABORATORY SCIENCE COURSES-** The following courses meet the UC/CSU laboratory Science requirement.

### **BIOLOGY**

**UC/CSU - “D” or “G”**

Grade Levels: 9-12

Repetitions for Credit: No

Prerequisites: Recommended for college bound students. Also open to 9th graders with a B plus average, concurrent enrollment in Algebra/Integrated Math or Geometry and teacher/counselor recommendation.

Graduation Requirement: Life Science

This course is a life science laboratory science course that explores the topics of scientific investigation, ecology, molecular and cell biology, heredity and biotechnology, and evolution. Regular laboratory experiences include microscope work,

ecology simulations, dissection, DNA extraction, gel electrophoresis, enzyme activity, genetics and natural selection simulations. In addition to content knowledge, critical thinking will be assessed. Common Core ELA standards in reading and writing for science will be practiced and assessed

### **AP BIOLOGY**

**UC/CSU “D” or “G”**

Grade Levels: 10-12

Repetitions for credit: No

Prerequisites: Chemistry & Biology or instructor’s approval.

Graduation Requirement: Life Science

This fast-paced laboratory life science course is designed for students to take the AP Biology College Board exam in May. Equivalent to a first year college-level introductory Biology course, AP Biology focuses 4 big ideas:

Big Idea 1: The process of evolution drives the diversity and unity of life.

Big Idea 2: Biological systems utilize free energy and molecular building blocks to grow, to reproduce, and to maintain dynamic homeostasis.

Big Idea 3: Living systems store, retrieve, transmit, and respond to information essential to life processes.

Big Idea 4: Biological systems interact, and these systems and their interactions possess complex properties.

Extensive laboratory experiences focus on developing investigation and inquiry skills, laboratory techniques, and analytical skills. This course requires extensive outside of class study, homework and regular Bruin Time laboratory work.

### **AP ENVIRONMENTAL SCIENCE**

**UC/CSU “D” or “G”**

Grade Levels: 11-12

Repetitions for credit: No

Prerequisites: Two years of laboratory science-one year of physical and one year of life

Graduation Requirement: Life or Physical Science

This course is an interdisciplinary science drawing upon concepts found in earth science and life science that will prepare students to take the College Board AP Environmental Science exam in May. This course is designed to increase student awareness of environmental issues both local and global. Topics covered include; population biology, land and water use, pollution, earth resources, energy resources and use, ecosystems and energy flow, and global change. This course will include laboratory experience collecting and analyzing data both inside and outside the classroom. Some projects will be ongoing and require work outside of class time.

### **INTEGRATED AGRICULTURE BIOLOGY**

**UC/CSU “D” or “G”**

Grade Levels: 9-12

Repetitions for Credit: No

Prerequisites: One year of introductory agricultural science or instruction in basic science principles at the 8th or 9th grade level.

Graduation Requirement: Life Science

Agricultural Biology is a one year, laboratory science course, designed for the college-bound student with career interests in agriculture. The course will emphasize understanding the principle ideas and concepts through lecture, discussion, and student presentations of the following topics: Molecular and cellular aspects of life, chemical and structural basis of life, cellular metabolism and energetics, genetics and inheritance, DNA structure and gene technology, evolution and natural selection, ecological relationships between plants, animals, and humans, taxonomy, interrelationships of kingdoms of organisms, and physiology and anatomy of major animal phylums. The course is centered around an extensive laboratory component (including microscope work and dissection of organisms) in order to connect the big ideas of life science with agriculture applications, earth and physical science principles, and other curricular areas including written and oral reporting. FFA or community service activity assignments will be given to enhance citizenship and leadership qualities.

## **CHEMISTRY I**

**UC/CSU “D” or “G”**

Grade Levels: 9-12

Repetitions for Credit: No

Prerequisites: Algebra 1/Integrated Math 1 with B or better (“A” for incoming freshman), concurrent enrollment in Integrated Mathematics II.

Graduation Requirement: Physical Science

Chemistry is the study of matter and the changes that take place in matter. In the first semester students will learn to write and balance chemical equations, classify chemical reactions and predict the products of reactions, and use stoichiometry methods to solve problems. We will use current atomic theory to study bonding and the shapes of molecules. The second semester will include the study of kinetic theory and the gas laws, thermodynamics, kinetics, solutions, equilibrium and acid-base reactions. Approximately 20% of the class time is spent on laboratory work, with students working in pairs.

## **AP CHEMISTRY**

**UC/CSU “D” or “G”**

Grade Levels: 10-12

Repetitions for Credit: No

Prerequisites: Grade of B or better in Algebra II / Integrated Math III, B or better in Chemistry.

Graduation Requirement: Physical Science

This advanced placement course will briefly review the topics covered in Chemistry 1 and will quickly move on to advanced topics in kinetics theory, thermo- dynamics, kinetics, equilibrium, and electrochemistry. This intense, fast paced class is geared toward preparation for the A.P. exam in May.

## **PHYSICS**

**UC/CSU “D” or “G”**

Grade Levels: 9-12

Repetitions for Credit: No

Prerequisites: Algebra I/Integrated Mathematics I with grade of B, concurrent enrollment in Geometry/Integrated Mathematics II

Graduation Requirement: Physical Science

Physics is the study of the physical universe. The course will investigate forces, interaction and change, matter, space and time. Students will study all material things from atoms to galaxies. Approximately 1/5 of the class time is spent on laboratory work with students working in groups.

## **AP PHYSICS**

**UC/CSU “D” or “G”**

Grade Levels: 11-12

Repetitions for Credit: No

Prerequisites: Algebra 2 / Integrated Math III, concurrent enrollment in Precalculus or AP Calculus

Graduation Requirement: Physical Science

This course covers two major areas: mechanics and electricity and magnetism, with equal emphasis on both. Calculus is frequently used in formulating principles and in solving problems. Additionally, students completing this course may earn college credits by taking and passing the College Board Advanced Placement test. The University of California recognizes this as an honors class and, therefore, adds one extra point in computing the G.P.A.

Note: AP courses may alternate from year to year. See your counselor for the current AP Ledger.



## **SOCIAL STUDIES**

### **WORLD HISTORY**

**UC/CSU “A”**

Grade Levels: 10  
Repetitions for Credit: No  
Prerequisites: None  
Graduation Requirement: World History

Students examine major turning points in the shaping of our modern world, from the late eighteenth century to the present with a focus on the growing interdependence of peoples and cultures throughout the world. Students will be required to complete a 5 to 7 page research paper.

### **WORLD HISTORY X**

**UC/CSU “A”**

Grade Levels: 10  
Repetitions for Credit: No  
Prerequisites: Recommendation of the 9th grade English teacher.  
Graduation Requirement: World History

Students examine major turning points in the shaping of our modern world, from the Renaissance to the present with an emphasis on the twentieth century. This course is an honors level accelerated course. Numerous 2-3 page essays are required for this class as well as one 7-10 page research paper.

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

**UC/CSU “A”**

Grade Levels: 11  
Repetitions for Credit: No  
Prerequisites: None  
Graduation Requirement: US History

Students examine major turning points in American History, with special emphasis on the twentieth century. Students look at how ideas and events shape our institutions and influence our daily lives. Students are required to complete a 5 to 7 page research paper.

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

**UC/CSU “A”**

Grade Levels: 11  
Repetitions for Credit: No  
Prerequisites: Minimum G.P.A. of 3.0 and teacher approval.  
Graduation Requirement: U.S. History

This course is for those who are academically motivated to go beyond the basic elements of American History. Students will be expected to interpret and apply major issues in U.S. History through oral debate, comprehensive essay writing, research and outside readings.

**AMERICAN GOVERNMENT**

**UC/CSU "A"**

Grade Level: 12

Repetitions for Credit: No, 1 Semester Course

Prerequisites: None

Graduation Requirement: Government

This class will compare the systems of government in the world today and analyze the life and changing interpretations of the Constitution, the Bill of Rights and the current state of the legislative, executive, and judicial branches of the government. An emphasis will be placed on analyzing the relationship among federal, state, and local government, with particular attention to important historical documents.

**AP AMERICAN GOVERNMENT**

**UC/CSU "A"**

Grade Level: 12

Repetitions for Credit: No

Prerequisites: Minimum G.P.A. of 3.0 and teacher approval.

Graduation Requirement: Government

Advanced Placement United States Government and Politics course is designed to give students a critical perspective on government and politics in the United States. This course involves both the study of general concepts used to interpret U.S. politics and the analysis of specific case studies.

**ECONOMICS**

**UC/CSU "G"**

Grade Level: 12

Repetitions for Credit: No, 1 Semester Course

Prerequisites: None

Graduation Requirement: Economics

This course is designed to acquaint the student with the terms, theories and practices of economics and its effect on modern society. Students will be required to research, develop and report on an economics project.