



# **Berean**

**C H R I S T I A N**

Course Catalog  
2020~2021

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## HOW TO USE THIS CATALOG

1. Read the General Information.
2. Review the course and course descriptions.
3. Check the prerequisites for the courses you need or want.
4. Review the requirements for colleges to determine which courses must be taken.
5. Complete the **Course Selection Form**. Be sure you complete the following steps.
  - a. Consult first with your parents, then with your teachers, and complete your course selection form with alternate choices.
  - b. Be sure you have met the necessary prerequisites for all classes; please note that some classes require a teacher recommendation.
  - c. Return your completed course selection form by the appointed due date.
  - d. Unless noted otherwise, all classes meet for the full year; and all students are expected to be enrolled for the entire course.

## GENERAL INFORMATION

This course catalog has been prepared to help you plan your high school program. If you have plans to go to a specific college or university after high school, you will need to consider carefully which courses you must take each year in order to fulfill that college or university's admission requirements. The College and Career Center is an excellent place for you to begin searching for information about the school you may attend after high school.

It is advisable that both the student and the parents read the catalog together before making class selections. Please refer to the Parent-Student Handbook for more detailed academic information that is not found in this catalog.

Course offerings are determined by enrollment. If a minimum number of students do not enroll in a scheduled class, the school may cancel the class.

Before a student's schedule is finalized in the database, the student must be current with re-enrollment registration fees and any outstanding tuition that is due the school.

Students may request class schedule changes during the first two weeks of each semester only if absolutely necessary. Late changes can be requested by a parent or a teacher if a parent teacher conference is held. The same Schedule Change Form is used, but either the parent or the teacher needs to write on the form the reason for the late change. A Schedule Change Form is available in the office. Teachers' and parents' signatures, along with approval from the Director of Academic Affairs, are needed before the change is actually made. Classes may not be dropped during the last four weeks of a semester.

A student wishing to take honors and advanced placement courses must meet certain prerequisites. These approvals are tentative until the student's second semester grades are reviewed to validate that the student has met the stated prerequisites. All honors and advanced placement classes require a full year commitment by the student.

## FEES AND EXPENSES

*Please refer to the current Tuition and Fee Schedule for the most up-to-date information.* In addition to the tuition and mandatory fees described on the schedule, most students will incur additional fees depending upon class, activity, and transportation selections. The most common fees are described below. Upon evaluation, new offerings not listed below may also be assessed fees.

### **P.E. Clothing and Locks**

These items must be purchased by all incoming students and may be used throughout the student's tenure at Berean.

- P.E. Clothes - \$20 for Berean PE shorts and shirt (optional sweat clothes available at additional cost).
- Locks - \$15

### **Class/Lab Fees**

\$15 per semester

- Art Classes (all levels)

\$30 per semester

- Graphic Arts and Design I
- Graphic Arts and Design II
- Digital Photo Arts

\$40 per semester

- Anatomy/Physiology
- Athletic Training
- On Your Own
- Introduction to Computer Programming
- AP Computer Science Principles

\$75 assessed first semester only

- AP English Language consumable textbook

\$95 assessed second semester only

- per each AP class

\$95 per semester

- Engineering Electives

## Other Fees

TBD—exact amounts will vary from year to year. Parents are responsible to read all Berean correspondence and attend informational meetings to be informed of full financial commitments required for various activities and performance groups. Amounts shown are typical range for recent years.

- Advanced Drama tour & t-shirt/sweatshirt: \$450-\$500
- Abundant Life Singers tour & sweatshirt: \$400-\$450
- Advanced Chorale tour & sweatshirt: \$400-\$450
- Performance clothing for ALS and Chorale/Girls' Choir: \$50-\$180
- Cheerleading: \$1,000-\$1,500 per year for uniforms and accessories, travel fees, competition fees, camps, etc.
- Shakespearean Literature class mandatory plays & festivals: \$300-450
- Field trips: \$10-\$65
- Club dues & gear: (e.g., Debate Club: \$100-\$150; Robotics Club: \$150-\$250; Trap Club: \$100-\$350)

## Athletic Fees

Charged to students participating in interscholastic sports in a given school year:

- 1st sport @ \$350
- 2nd sport @ \$200
- 3rd sport @ \$150

Notes:

- 1) Fees can be reimbursed within 2 weeks from the start of the season for students choosing to withdraw from the team. Students joining the team late will be required to pay the full sport fee if they desire to receive credit for playing. Please refer to Tuition & Fee Schedule for additional clarification of financial commitment.
- 2) Upon approval of the athletic director, a portion of sport fees may be refunded at the rate of \$10 per game for selected parental volunteer efforts in the basketball or football programs.
- 3) Although uniforms are provided for most sports, some teams may require extra items to be purchased (e.g. footwear, warm-ups, swimsuits, additional gear). Parents should plan to attend team informational meetings to find out the full financial commitment of a participating in any particular sport.
- 4) The Berean Booster Club provides scholarships toward the athletic fees for student athletes with financial need in exchange for a service commitment.

## Transportation Expenses

- Berean offers bus transportation to and from school from selected locations in Contra Costa County. Students are billed per one-way trip, and fee per ride depends upon bus stop location used (e.g., varying from \$2.25 per trip to/from Walnut Creek to \$4.75 per trip to/from Brentwood in recent years). Fees and routes are subject to change based on demand and fuel costs. For current information, check out the Bus Schedule link on our website.
- Students who drive to BCHS must purchase an annual parking pass (\$20).

## Other Optional Expenses

Athletic events, drama and music productions, banquets and socials, yearbooks, school photos, and dual-credit fees for courses offering college credit.

## GENERAL ACADEMIC INFORMATION

### 1. High School Credit Hours

Every full-year course is divided into two semesters. For each semester completed, the student will receive five credit hours on his transcript. A credit hour is defined as a period of 40-60 minutes of instruction a day for not less than 15 weeks. Since each class meets the equivalent of five 40-60 minute periods a week, each class will be assigned five credit hours per semester.

A student completing six full-year courses each year for four years will meet the minimum requirement of 240 credit hours for graduation.

A student will not receive any credit hours for a class in which they earn a semester grade of an F. They will have to repeat the course if it is a graduation requirement and will not be able to continue to the next level until the prerequisite has been completed.

### 2. Grade Point Average – GPA

The grade point is the value that corresponds to each grade given at the end of the semester. The GPA is dependent upon the credit hours.

The grade point values for all classes except AP/Honors classes are as follows:

A=4 B=3 C=2 D=1 F=0

Note: Pluses and minuses are not considered when the GPA is computed.

AP and Honors classes are based upon a 5 grade point value:

A=5 B=4 C=3 D=2 F=0

In order to compute the GPA, add the total number of grade points and divide by the number of courses. For example:

Example 1			Example 2		
Course	Grade	Points	Course	Grade	Points
Bible	A	4	Bible	B	3
English	C	2	AP English	A	5
Math	B-	3	Math	A	4
Science	C+	2	AP Science	B	4
History	F	0	History	A	4
Physical Ed.	A-	4	Honors Art	A	5
	15/6 =	2.50 GPA		25/6 =	4.17 GPA

The GPA is computed and recorded each semester and is called the semester GPA.

Each semester the grades are averaged with grades from all previous semesters in order to determine the cumulative GPA.

## **GENERAL ACADEMIC INFORMATION (CONTINUED)**

### **3. Promotion**

When the student is accepted for re-enrollment, he will automatically be promoted if he has earned the minimum number of credits to enter the next grade in September. Minimum credit totals are as follows:

To enter 10th grade, a student must have 50 credits.

To enter 11th grade, a student must have 110 credits.

To enter 12th grade, a student must have 175 credits.

If a student is not promoted in September, he may be promoted in January by meeting the minimum credit requirements for his grade.

### **4. Semester Exams**

At the end of each semester, exams will be scheduled. The schedule will be published in the daily bulletin. All students are expected to take these exams.

### **5. Exemptions**

All students are expected to take final exams. The exception to this rule is for second semester seniors who have maintained at least a B average for the semester. At the teacher's discretion, these students may be exempt from taking the final exam in those classes. Students are encouraged to take the final exam if they can improve a B to an A. Seniors who are exempt from all finals are permitted to take the last days off from school following Senior Chapel.

### **6. Honor Roll and Principal's Honor Roll**

Students will be listed on the first semester and second semester honor rolls if they have a 3.5 to 3.9 GPA without any F's or drops in current work. Students will be listed on the first semester and second semester Principal's Honor Roll if they have a 4.0 (or above) GPA without any drops in current work.

### **7. California Scholarship Federation (CSF)**

Eligibility for membership is determined at the beginning of each semester based upon the previous semester's grades according to the standards of the CSF. As a general rule, students who earn two A's for every B in university preparatory courses will be eligible. Membership is not automatic to those who are eligible; interested students must apply for membership on an individual basis within the first two weeks of each semester. Membership application instructions will be announced in the daily bulletin.

### **8. Transcripts**

Students requesting transcripts for college applications, scholarship applications, etc., must make a formal request to our registrar. Requests should be emailed to the registrar and include the student's name, date of request, and addressee's name and address including zip code. Five business days are required for processing transcripts; same day requests cannot be honored.

## 9. Student Athletes

Students are encouraged to register with and consult the NCAA/NAIA websites for current eligibility requirements. In addition, students should work closely with the college counselor in planning a course of study to meet eligibility requirements.

### **STANDARDIZED TESTING**

#### **PSAT/NMSQT (Preliminary Scholastic Assessment Test/National Merit Scholarship Qualifying Test):**

The preliminary/practice SAT is administered nationally in October to freshman, sophomore and junior students. Junior year scores can qualify students for the National Merit Scholarship Program. By taking this test, students become familiar with the type of questions found on the SAT. Visit [www.collegeboard.org](http://www.collegeboard.org) for more details.

#### **SAT (Scholastic Assessment Test):**

The SAT is a college admissions test required by many colleges and universities as part of the college admissions process. Check out [www.collegereadiness.collegeboard.org](http://www.collegereadiness.collegeboard.org) for more information. Registration information is available at [www.collegeboard.org](http://www.collegeboard.org).

#### **SAT Subject Test:**

(Subject-based tests in mathematics, literature, history, science, and languages)

Some colleges and universities may require these tests for admission purposes. Each test is one hour long. Registration is similar to that for the SAT. Register online at [www.collegeboard.org](http://www.collegeboard.org)

#### **ACT (American College Test):**

The ACT is a college admissions test required by many colleges and universities as part of the college admissions process. It is a three-hour test comprised of four parts: English, Math, Reading, and Science Reasoning. (An optional writing subject test is available, and Berean recommends that students who take the ACT take the writing component.) Register online at [www.actstudent.org](http://www.actstudent.org).

#### **AP (Advanced Placement):**

Advanced Placement exams are given in May. A score of 3, 4, or 5 (out of 5) will often enable a student to receive college units of credit upon matriculation to a college or university. Visit [www.collegeboard.org](http://www.collegeboard.org) for more details.



## BCHS GRADUATION REQUIREMENTS

SUBJECT	GENERAL HIGH SCHOOL DIPLOMA	
Bible	40	
English	40	
Social Studies	30	
Math	30	See Note 1
Life Science	10	
Physical Science	10	
Language other than English (LOTE)	0	See Note 2
Physical Education	20	See Note 3
Visual or Performing Arts	10	See Note 2
Electives	50	
Total Credits Required for Graduation	240	

A minimum of 240 semester credits is required to be completed by all students for graduation from Berean Christian High School. Students are encouraged to acquire additional credits in the areas of math, science, English, and language other than English (LOTE). Consult **UC & CSU Admission Requirements** for additional details. It is advisable that students consider taking classes in leadership as well as being involved in a variety of extra curricular activities in order to prepare best for college admissions.

Notes:

- 1) Must include Algebra I.
- 2) It is acceptable to take 10 units of language other than English (LOTE) in place of visual or performing arts or ten units of visual or performing arts in place of a language other than English (LOTE).
- 3) Two years required for graduation. One year must be a P.E. course (including health) and the other year may be a second P.E. course or participation in our sports program.

## CSU AND UC ADMISSION REQUIREMENTS

### California State University System – CSU

Minimum eligibility requirements for students entering 2020-2021  
(Please look at [www2.calstate.edu/apply](http://www2.calstate.edu/apply) for current eligibility index.)

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English .....	4 years
Math * .....	3 years
	4 years recommended
World History .....	1 year
U.S. History .....	1 year
U.S. Government .....	1/2 year
Lab Science ** .....	2 years
Language other than English (LOTE) *** .....	2 years
Visual or Performing Arts .....	1 year
Elective **** .....	1 year

- \* Must include Algebra I, Geometry, and Algebra II.
- \*\* Must include one year life science and one year physical science.
- \*\*\* Must include two years of the same language.
- \*\*\*\* Elective chosen from a subject area listed above.

GPA of 2.0 or above and satisfactory SAT or ACT scores

### University of California – UC

Minimum eligibility requirements for students entering 2020-2021  
(Check out <http://admission.universityofcalifornia.edu/freshman/requirements/> for current eligibility index.)

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English .....	4 years
Math * .....	3 years
	4 years recommended
World History .....	1 year
U.S. History .....	1 year
U.S. Government .....	1/2 year
Lab Sciences ** .....	2 years
	3 years recommended
Language other than English (LOTE) .....	2 years
	3 years recommended
Visual or Performing Arts .....	1 year
Elective **** .....	1 year

- \* Must include Algebra I, Geometry, and Algebra II.
- \*\* Must include biology, chemistry or physics. Two years required, three years recommended.
- \*\*\* Must include two years of the same language. Two years required, three years recommended.
- \*\*\*\* Select from the UC approved course list (a-g Subject List).

GPA of 3.0 or above  
SAT or ACT

\*The UC's and CSU's consider only sophomore and junior year grades in the a-g subjects for admission eligibility.

## UC “A-G” SUBJECT REQUIREMENTS

### **“a” History/Social Science – 2 years required.**

Two years of history/social science, including one year of world history, cultures and geography; and one year of U.S. history or one-half year of U.S. history and one-half year of civics or American government.

### **“b” English – 4 years required.**

Four years of college preparatory English that includes frequent writing, from brainstorming to final draft, as well as reading of classic and modern literature. No more than one year of ESL-type courses can be used to meet this requirement.

### **“c” Mathematics – 3 years required, 4 years recommended.**

Three years of college preparatory mathematics that includes the topics covered in elementary and advanced algebra and two- and three-dimensional geometry. Approved integrated math courses may be used to fulfill part or all of these requirements, as may math courses taken in the seventh and eighth grades if the high school accepts them as equivalent to its own courses.

### **“d” Laboratory Science – 2 years required, 3 years recommended.**

Two years of laboratory science providing fundamental knowledge in two of these three core disciplines: biology, chemistry and physics. The final two years of an approved three-year integrated science program may be used to fulfill this requirement.

### **“e” Language Other Than English – 2 years required, 3 years recommended.**

Two years of the same language other than English. Courses should emphasize speaking and understanding, and include instruction in grammar, vocabulary, reading, composition and culture. Courses in language other than English taken in the seventh and eighth grades may be used to fulfill part of this requirement if the high school accepts them as equivalent to its own courses.

### **“f” Visual and Performing Arts (VPA) – 1 year required.**

One yearlong course of visual and performing arts chosen from the following: dance, drama/theater, music or visual art.

### **“g” College Preparatory Electives – 1 year required.**

One year (two semesters), in addition to those required in “a-f” above, chosen from the following areas: visual and performing arts (non-introductory level courses), history, social science, English, advanced mathematics, laboratory science and language other than English (a third year in the language used for the “e” requirement or two years of another language).

## **COURSE DESCRIPTIONS**

### **Art**

#### **6010 Art I**

Two Semesters

Prerequisite: None

Art I is a foundational course upon which all other drawing and painting classes build. Students will learn to draw & paint using the human body, nature and man-made objects. Students will experiment with a variety of mediums from pencil to acrylic paint and explore the elements of art and principles of design. Gallery visit required. **UC/CSU**

#### **6035 Art II**

Two Semesters

Prerequisite: Satisfactory completion of Art I

Art II is an applied art history course; students will study 20<sup>th</sup> century art and create original works using the principles of each movement. Magazine, sketchbook, and two gallery visits are required. **UC/CSU**

#### **6040 AP 2D Art and Design**

Two Semesters

Prerequisite: Art I and Art II **or** Graphic Arts & Design 1 and Graphic Arts & Design II

AP 2D Art. And Design students will complete an inquiry-based investigation of 2D design principles while following the guidelines for portfolio development as set forth in the concentration section of the AP 2D Art and Design Exam. Two gallery visits are required. Students may earn college credit if they pass the Advanced Placement exam given in the spring. **UC/CSU**

#### **6050 AP Drawing**

Two Semesters

Prerequisite: Art I, Art II, AP 2D Art and Design **or** Seniors with a portfolio that shows a range of drawing skills

AP Drawing students will follow the guidelines for portfolio development as set forth in the concentration section of the AP Drawing Exam. This course is primarily student driven with oversight and input from the instructor. Two gallery visits are required. Students may earn college credit if they pass the Advanced Placement exam given in the spring. **UC/CSU**

#### **6060 AP Art History**

Two Semesters

Prerequisite: Juniors/Seniors: A/B in prior English classes; Sophomores: A in English I and successful completion of writing assessment

The AP Art History course is equivalent to a two-semester college survey course exploring the nature of art, art making, and responses to art. By investigating specific course content of 250 works of art characterized by diverse artistic traditions from prehistory to the present, students develop in-depth, holistic understanding of the history of art from a global perspective. Students become active participants in the global art world, engaging with its forms and content. They experience, research,

discuss, read, and write about art, artists, art making, responses to, and interpretations of art.  
**UC/CSU**

### **4515 Graphic Arts and Design I**

Two Semesters

Prerequisite: None

In this course, students will spend the first quarter reviewing the basics of a computer and introduction to Adobe Creative Cloud. The remainder of the year the students will focus on three art and design programs: Adobe Photoshop, Adobe Illustrator, and Adobe InDesign. **UC/CSU**

### **4525 Graphic Arts and Design II**

Two Semesters

Prerequisite: Successful completion of Graphic Arts and Design I

In this course, students will cover the basics of digital photography and continue working to master the three art and design programs of the Creative Suite: Adobe Photoshop, Adobe Illustrator, and Adobe InDesign. Students will develop a portfolio by the end of the year utilizing class projects.

**UC/CSU**

## **Bible**

### **2810 Bible Foundations (9<sup>th</sup> grade)**

Two Semesters

Prerequisite: None

In preparing students for life after high school, there is no better place to begin than with the foundations of the Christian faith: the Old Testament and Jesus. In the first semester, the students will conduct a survey of the Old Testament to gain a foundational understanding of the Old Covenant and how God orchestrated His plan for salvation that would come through Jesus. The students will begin to develop an understanding of how God revealed Himself to Israel and will become familiar with the historical events that would lead to Messiah coming. In the second semester, the students will closely examine the life of Christ using John's gospel account. Through seeing Christ as He really is, and contemplating what He has done on their behalf, students will be challenged to trust Him fully. (John 20:30-31)

### **2822 Applied Biblical Studies (10<sup>th</sup> grade)**

Two Semesters

Prerequisite: Satisfactory completion of 9<sup>th</sup> grade Bible

In this course, students will explore the major doctrines of the faith in order to reinforce the student's personal beliefs and encourage them to be contenders for our faith. Students will study critical issues of the day in an effort to help them better understand themselves and their problems in light of God's Word.

### **2830 Hermeneutics and Church History (11<sup>th</sup> grade)**

Two Semesters

Prerequisite: Satisfactory completion of 9<sup>th</sup> & 10<sup>th</sup> grade Bible

In the first semester, students will examine the art and science of biblical interpretation and learn to study the Bible in its ancient contexts. In the second semester, students will survey the last 2000 years

of historical Christianity by studying the book of Acts and by tracing the Christian movement through its formation and worldwide expansion.

### **2841 Understanding the Times (12<sup>th</sup> grade)**

Two Semesters

Prerequisite: Senior Status

The goal of this course is to prepare students to have a ready defense of the hope that lies within them as they go out into their adult life. The first semester is focused on the major rival worldviews in the western world and how to address them philosophically and evangelistically. The second semester asks if Christianity is true, what is its impact on real life, and will we be humble enough to act accordingly? The class will involve lecture, discussion, interviews from guest speakers, and various other forms of visual media. In both semesters, students will pick a book from a provided list in order to write a detailed book report. Finally, students will be required to attend two field trips where they will interview strangers about their worldviews and where their hope is found.

### **2854 Stepping Up (12<sup>th</sup> grade Boys)**

Two Semesters

Prerequisite: Senior Status

Space is limited

Stepping Up is a Bible elective for Senior boys designed to equip them to act like men (1 Cor. 16:13-14) in pursuing righteousness and fleeing youthful lust (1 Tim. 6:11; 2 Tim. 2:22) in order to be sober-minded, dignified, self-controlled, sound in faith, in love, and in steadfastness (Titus 2:2). This will be accomplished through participation in a weekly bible study, accountability groups, watching various videos, reading selected books, and participating in service projects throughout the year.

### **2860 Walking Worthy: Becoming a Woman of God (12<sup>th</sup> grade Girls)**

Two Semesters

Prerequisite: Senior Status

Space is limited

In Walking Worthy, we study who we are in Christ and who we are as members of the Body of Christ. We study the Gospel of Luke and the stories of women of the Bible, through discussion, journaling, and meditating on Scripture. As we study Scripture and the lives of faithful women from the last 2,000 years, we will consider our own giftings and how God may be calling us to serve Him in the future.

## **Drama**

### **6210 Beginning Drama**

Two Semesters

Prerequisite: None

This course will explore the many elements of stagecraft while acknowledging God as the creator of creativity. It will introduce the craft of acting by reviewing the elements of the stage, the different techniques used to create a character, and the importance of eliminating the common mistakes made by the amateur actor. This class will include some lecture; however, the craft of acting requires a great deal of hands-on work. Therefore, this class will include much observation, discussion and interaction. It will employ numerous acting exercises such as acting games to encourage creativity.

In addition to acting, Beginning Drama will introduce students to the art of make-up techniques.  
**UC/CSU**

### **6220 Advanced Drama**

Two Semesters

Prerequisite: One year of Beginning Drama, audition and teacher approval

This is a production-driven class where performance and honing the student's acting skills are emphasized. The drama team has many opportunities to perform throughout the year at school and community events as well as on tour in the spring. Extra hours outside of class, including after-school and evening rehearsals, are required. **UC/CSU**

### **6230 Stagecraft**

Two Semesters

Prerequisite: One year of Beginning Drama and Teacher approval

Stagecraft is the study of technical aspects of theatre. This course will introduce the student to technical and production aspects of theatre. Students will learn skills in set construction, lighting, sound, makeup and a variety of other skills. They will learn through practical application by a production-driven schedule. The skills and knowledge gained will be immediately applied to whatever production is being presented. **UC/CSU**

## **English**

### **1010 English I**

Two Semesters

Prerequisite: None

Basic grammar skills will be studied, reviewed, and applied in this college preparatory course. Thinking and writing skills will be creative and analytical. A research paper will be required in order to pass the course. All skills will be incorporated throughout their literary studies. The student literature program is a complete program offering high quality, appealing, traditional and contemporary literary selections. Studying the short story, nonfiction, novel, and drama introduces students to those critical reading skills that are necessary for understanding literature. These activities will be geared toward helping them appreciate writers' vocabulary and discussing literature from a Christian viewpoint. **UC/CSU**

### **1020 English II**

Two Semesters

Prerequisite: Satisfactory completion of English I

English II is a college preparatory course integrating language arts skills with various genre of literature. Particular attention will be given to the areas of oral and written communication, grammar rules and usage, critical thinking and reading strategies. Each student will be responsible for a variety of original writing, including an extensive career investigation research paper which is required for a quarter grade. **UC/CSU**

### **1025 Honors English II**

Two Semesters

Prerequisite: A in English I (teacher approval for B); successful completion of writing assessment; completion of summer homework assignment

In addition to everything covered in English II, the honors version includes more frequent writing exercises, an emphasis on higher order thinking, more advanced structure in writing, Socratic style class discussions, the creation of a writing portfolio, frequent self-evaluations and peer reviews, the addition of a second term paper, a focus on debate skills, and more in-depth analysis for each unit. Students will learn to apply research and critical thinking to each unit, taking a more collegiate and independent approach to learning. **UC/CSU**

### **1030 American Literature**

Two Semesters

Prerequisite: Two years of English

American Literature is a college preparatory course that integrates the language arts skills (reading, writing, speaking and listening) into the reading of a chronological survey of American literature. This integration includes grammar and mechanics, critical thinking, analysis, literary criticism, vocabulary study, impromptu speaking and persuasive speaking. Students are responsible for the formulation, development, and revision of a research paper whose length will be determined and announced by the instructor. As this paper is a requirement, no student will receive a quarter grade without its completion. **UC/CSU**

### **1040 British Literature**

Two Semesters

Prerequisite: Three years of English

British Literature is a college preparatory course that integrates the language arts skills into the reading of a chronological survey of English literature. This integration includes grammar and mechanics, critical thinking, writing, analysis, literary criticism, vocabulary study, and extemporaneous speaking while looking at literature from a Christian perspective. A research paper is required in order to pass this course. **UC/CSU**

### **1045 Shakespearean Literature and Composition (Honors)**

Two Semesters

Prerequisite: A/B in AP English Language or A in American Literature (lower grade requires both teacher recommendation and writing sample); mandatory summer homework assignment; additional costs associated with required plays/festivals

This course is an in-depth study of Shakespearean literature all centralized around key themes within the study of human nature; predominantly, identity, role of man in society, as well as leadership and relationships, will be provided in this course. Through an incorporation of grammar and mechanical studies, critical thinking, analytical writing, literary criticism, as well as a variety of both extemporized and structured oral presentations, students will be prepared not only for their collegiate courses following high school, but also a climate which, most often, rewards language skills and oral delivery. While in this class, literature will be studied through a Christian worldview, allowing students to intelligently analyze and compare with worldviews that may compete with his or her own. **UC/CSU**



### **1050 AP English Language and Composition (Dual Credit Option)**

Two Semesters

Prerequisite: Junior status; academic preparation for challenging coursework that focuses on analytical/argumentative writing, rhetorical analysis of non-fiction texts, and the decisions writers make as they compose and revise; successful completion of writing assessment; submission of writing sample, in addition to group writing assessment; summer homework is required

The Advanced Placement English Language and Composition course integrates the language arts skills of reading, writing, analytical thinking, listening and speaking into the study and application of various forms of writing, both expository and creative. This integration includes critical thinking, analysis, vocabulary development, grammar and mechanics. Based primarily upon non-fiction essay sources, the course will include some poetry and fiction as well. Students will respond to written and visual work with articulate, well-reasoned essays and reflections. Term paper and portfolio required. Students may earn college credit if they pass the Advanced Placement exam given in the spring. **UC/CSU**

### **1060 AP English Literature and Composition (Dual Credit Option)**

Two Semesters

Prerequisite: A in AP English Language and Composition; B in AP English Language and Composition or A/B in American Literature with teacher recommendation; students not meeting grade standard in either class require **both** current teacher recommendation and writing assessment; mandatory summer homework assignment

The Advanced Placement English Literature course is designed to enable a Christian student to evaluate fiction, drama, poetry and non-fiction from a Biblical world view so that he appreciates God's common grace in the creative gifts, so that he can discern the truth and reject the falsehood in all that he reads, so that he can assess his Christian position in today's culture, and so that he can effectively express himself in expository writing. Term paper and portfolio required. Students may earn college credit if they pass the Advanced Placement exam given in the spring. **UC/CSU**

## **Language Other Than English**

### **4010 Spanish I**

Two Semesters

This course introduces the student to the basic pronunciation, grammar and vocabulary of the Spanish language and provides extensive opportunity for oral and written expression with the intention of developing conversational and compositional skills. **UC/CSU**

### **4020 Spanish II**

Two Semesters

Prerequisite: Minimum grade of B in Spanish I

This second level course provides students with increasingly complex experiences in listening, speaking, reading and writing, and continued exposure in the Spanish language. Successful students will be able to carry on simple conversations in a variety of tenses, give and receive simple directions, make known ordinary needs, and carry on other simple acts of communication. **UC/CSU**

### **4030 Spanish III**

Two Semesters

Prerequisite: Minimum grade of B in Spanish II

This third level language course focuses on listening and speaking skills with an increasing emphasis on reading and writing skills. Students will read short stories and cultural vignettes in the Spanish language and will write paragraphs or short essays in the language as well. Students will be able to satisfy the demands of routine social interactions. **UC/CSU**

### **4040 AP Spanish Language (Dual Credit Option)**

Two Semesters

Prerequisite: Minimum grade of B in Spanish III

The Advanced Placement Spanish Language course provides students with an opportunity to practice their previously acquired language skills and to continue in their study of the culture through literary works and other authentic material. Students will be able to satisfy more demanding work requirements and exhibit increased understanding and speaking of the Spanish language. Students may earn college credit if they pass the Advanced Placement exam given in the spring. This course has a dual credit option available with Colorado Christian University: Students are eligible to earn elective college credits which are fully transferable to most universities by paying an additional fee and completing all course requirements. **UC/CSU**

### **4210 American Sign Language I**

Two Semesters

ASL I is a foundational course which introduces students to the language, history, and culture of the deaf community. This course provides students with a basic knowledge of ASL including the manual alphabet, numbers, and simple conversational signs. **UC/CSU**

### **4220 American Sign Language II**

Two Semesters

Prerequisite: Minimum grade of B in ASL I

ASL II builds upon basic skills introduced in ASL I with an emphasis upon increased vocabulary and broader knowledge of the deaf community. Students will expand vocabulary and grammatical skills in the areas of religious, legal and medical terminology. **UC/CSU**

### **4230 American Sign Language III**

Two Semesters

Prerequisite: Minimum grade of B in ASL II

ASL III continues to build upon basic skills acquired in ASL I and II. Emphasis will be upon expanding vocabulary and grammatical skills in order to develop enhanced conversational and translational skills. Students will continue to gain a deeper appreciation of the deaf culture and history. **UC/CSU**

## Mathematics

### **2000 Algebra IA**

Two Semesters

Prerequisite: Qualifying score on math assessment

This course is a college preparatory class that aims to develop understanding and computational skills using the real number system. Students are exposed to the language of mathematics. A variety of functions are explored with emphasis on linear equations and the different methods for solving equations. **UC/CSU**

### **2005 Algebra IB**

Two Semesters

Prerequisite: Minimum grade of C in Algebra 1A

This course is the second year of a two-year paced algebra program. A variety of functions are explored with an emphasis on polynomial and quadratic functions. Emphasis is also given to simplifying rational and radical expressions. The depth of instruction and pace of this course is designed for students who need to spend additional time in learning algebra concepts. **UC/CSU**

### **2010 Algebra I**

Two Semesters

Prerequisite: Qualifying score on math assessment

Algebra I is a college-preparatory course that aims to develop understanding and computational skills using the real number system. A variety of functions are explored with emphasis on linear and quadratic functions. Relevant problems are solved with the use of appropriate technology. **UC/CSU**

### **2020 Geometry**

Two Semesters

Prerequisite: Minimum grade of C in high school Algebra I and qualifying scores on math assessments

This course applies a deductive approach to learning the principles of geometry. Emphasis is put on problem solving, visual patterns and proofs. Topics covered are angles, congruent and similar triangles, circles, polygons, area, volume, and Pythagorean Theorem. **UC/CSU**

### **2030 Algebra II**

Two Semesters

Prerequisite: Minimum grade of C in both Algebra I and Geometry

Algebra II reviews topics from Algebra I and goes into greater detail covering linear and quadratic functions. Other topics covered are powers and roots, complex numbers, conic sections and exponential and logarithmic functions. **UC/CSU**

### **2035 Algebra II Trigonometry**

Two Semesters

Prerequisite: Minimum grade of B in second semester Algebra I and minimum grade B in geometry. This course covers all of the topics in Algebra II in addition to an introduction to trigonometry. **UC/CSU**

### **2040 Pre-Calculus**

Two Semesters

Prerequisite: Minimum grade of B in second semester Algebra II or minimum grade of C in Algebra II/Trig

Topics from Algebra II/Trig are looked at from the perspective of function analysis with an eye toward application to calculus. Topics include polynomials, rational functions, trigonometric concepts and functions, vectors, complex variables and the exponential and log functions. **UC/CSU**

### **2050 AP Calculus AB**

Two Semesters

Prerequisite: Minimum grade of B in second semester Pre-Calculus

This is a first semester college-level calculus course that is designed to span one year for the qualified high school student. This course covers concepts of limit, derivative, definite integrals and indefinite integrals. Students are expected to use high-level thinking skills and perform academically at a college-level. Lessons will be taught through the means of lectures, group discussions and projects. Students may earn college credit if they pass the Advanced Placement exam given in the spring. **UC/CSU**

### **2060 AP Statistics (Dual Credit Option)**

Two Semesters

Prerequisite: Minimum grade of B in Algebra II Trigonometry

The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four broad conceptual themes: 1) Exploring data: describing patterns and departures from patterns; 2) Sampling and experimentation: planning and conducting a study; 3) Anticipating patterns: exploring random phenomena using probability and simulation; 4) Statistical inference: estimating population parameters and testing hypotheses. Students who successfully complete the course and exam may receive credit, advanced placement or both for a one-semester introductory college statistics course. **UC/CSU**

## **Music**

### **7020 Concert Choir**

Two Semesters

Prerequisite: None

This class is open to all interested students who enjoy singing and wish to develop their vocal abilities. Basic music fundamentals will be covered in class. Students will perform a variety of choral music throughout the year at all school concerts and selected chapels. **UC/CSU**

### **7025 Advanced Chorale**

Two Semesters

Prerequisite: Audition

This class is filled by audition only and is designed for students who have a serious interest in vocal performance. A variety of musical styles will be explored and advanced performance technique will

be emphasized. Students will have the opportunity to perform at various school and community events and are responsible for outfit and tour expenses. **UC/CSU**

### **7030 Abundant Life Singers**

Two Semesters

Prerequisite: Audition

This class is filled by audition only and represents the elite singers of the school. ALS is involved in various outreach ministries and community performances; attendance is required at all performances. Students perform a wide variety of repertoire and are responsible for outfit and tour expenses. **UC/CSU**

### **7040 Concert Band**

Two Semesters

Prerequisite: None

This course is designed to give the student an enriching and diverse instrumental music education. The daily objective of the course is to foster and promote musical growth through the playing of an instrument by the student. Class activities emphasize the development of instrumental technique, tone production, tuning, fundamentals of music theory, music reading and listening skills. This class provides a number of performance opportunities for the student both in an ensemble setting as well as accompanists for our amazing choirs. **UC/CSU**

### **7045 Beginning Guitar**

Two Semesters

Prerequisite: None

This class is an introductory level course for students wishing to play the guitar. Students will learn basic chords, basic strumming patterns, picking and music theory. Students are responsible for providing their own instruments. **UC/CSU**

### **7060 Music Appreciation**

Two Semesters

Prerequisite: None

Music Appreciation is the perfect class for anyone who likes to listen to music and who likes to learn about interesting people. A fun addition to the class is that students will learn to play the ukulele. This class will also help a student prepare to major in music in college. However, it requires no previous music experience and is an enjoyable trip through many centuries of music and history in a fun and non-stressful environment. **UC/CSU**

## **Physical Education**

### **2510 Physical Education I and Health**

Two Semesters

Prerequisite: None

Physical education is a critical component in the overall education of the total person. This class will expose the student to a variety of different sports and allow him to practice the biblical principles of working hard, being honest, loving his neighbor and exhibiting self-control. It is a class that allows the student to glorify God in competition while challenging him physically, emotionally, socially and

spiritually. Health topics include physical, mental, social, and spiritual health. As Christians we believe that our body is the temple of the Holy Spirit and should be maintained in optimum condition.

### **2515 Dance Team**

Two Semesters

Prerequisites: Tryout and minimum 2.75 GPA

Dance Team members are selected following tryouts in the spring and are automatically registered for this class for the upcoming school year. The Dance Team performs with the cheerleaders at pep rallies, football games, basketball games, and various other sporting events. The Dance Team will perform sideline cheers and dances, and technique-based dance routines, with more intricate choreography and incorporating skills like turns, leaps, and kicks. Practices will be held primarily during the school day. Summer commitments include learning cheers and sideline dances through video, one to two weeks of practice, and participation in summer dance camp. Dance experience required.

### **2520 Physical Education II**

Two Semesters

Prerequisite: One year of PE and Health, Girls only

This course is designed to provide a second year of physical education for students needing to meet state graduation requirements who are not participating in Berean athletics or other PE courses.

### **2530 Weights and Conditioning I**

Two Semesters

Prerequisite: One year of PE and Health

This course is designed for boys who have little or no experience in weight training and would like to learn more about this form of conditioning as well as participate in a variety of sports. Technique and development will be stressed during weight training along with conditioning. Students will have the opportunity to develop physically in the areas of flexibility, agility, and cardiovascular fitness. Time will be split between the weight room, gym, and turf field. In addition to weight training, students will learn the history, rules, and development of a variety of sports.

### **2535 Weights and Conditioning II**

Two Semesters

Prerequisite: Weights and Conditioning; Teacher approval

This is an elective course for boys designed to assist them in improving their strength, size, and speed; prior experience in weight training is a prerequisite to taking this course. This course will use a standard lifting program consisting of core and Olympic lifts. In addition, students should expect to perform several other lifts and techniques which will help improve their overall physical fitness. This course will also include core and speed training as well as some distance running.

### **2540 Cheerleading**

Two Semesters

Prerequisites: Tryout and minimum 2.75 GPA

Cheerleaders are selected following tryouts in the spring and are automatically registered for this class for the upcoming school year. Cheerleaders perform alongside the dance team at pep rallies, football games, basketball games, and various other sporting events. Cheerleaders will perform sideline cheers and dances, half-time routines, and basic stunts. Practices will be held primarily during the school day. Summer commitments include learning cheers and sideline dances through video, one to two weeks of practice, and participation in summer cheer camp. Cheer, dance, stunting, and tumbling experience is appreciated, but not required.

### **2550 Athletic Training**

Two Semesters

Prerequisite: One year of PE and Health; Priority will be given to upperclassmen

This course is designed to connect the instruction of anatomy, physiology, biomechanics, and English to concepts in athletic training and allied health professions. Students will learn medical terminology, first aid, how to tape and wrap injuries, etc. The curriculum will include guest speakers and the opportunity to cover a variety of athletic events for hands-on experience. Students will be encouraged to view athletic training as means of influencing the world for Christ and ministering to many different types of individuals. **UC/CSU CTE**

### **2555 Advanced Athletic Training**

Two Semesters

Prerequisite: Successful completion of Athletic Training, Algebra I, Biology. Co-requisites of Anatomy & Physiology, Algebra II

In addition to the expectations for Athletic Training (level 1), Advanced Athletic Training students will be responsible for covering more hours at events and will mentor the level 1 students. They will learn about proper hydration and nutrition. The students will learn the correct and effective application of many additional taping, bandaging, and padding techniques. They will aid in the management of the athletes' injury and recovery period and will work through the processes with their athletes under the supervision of a Certified Athletic Trainer. The students will also begin creating a business profile in preparation for the professional world. **UC/CSU CTE**

### **2560 Weights and Conditioning III**

Two Semesters

Open to 10<sup>th</sup> - 12<sup>th</sup> grade boys

This will be an advanced weights and conditioning class with an emphasis on power lifting and strength training techniques during the football season. Workouts for multi-sport athletes will be adjusted to be sport specific each season.

### **2565 Performance Training for Basketball**

Two Semesters

Open to both male and female students

This course is for student athletes who wish to enhance their basketball skills as well as knowledge of the game. Units covered will include skills training, proper nutrition, building core strength, and weight training. Students need not be on a basketball team in order to participate, nor do they need to take the class in order to try out for the school teams.

## Science

### **3020 Biology**

Two Semesters

Prerequisite: None

This is a general survey course of biology covering such areas as biochemistry, cellular biology, genetics, microbiology, botany, zoology, human biology, ecology, and creation-evolution issues. This course stresses the biblical, creationist viewpoint of science and will provide students with an understanding of God as our creator. **UC/CSU**

### **3025 AP Biology**

Two semesters

Prerequisites: Successful completion of high school Biology and Chemistry

This is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions. **UC/CSU**

### **3030 Human Anatomy & Physiology**

Two Semesters

Prerequisite: Minimum grade of B in biology and teacher approval

Human anatomy & physiology includes an in-depth study of the parts and functions of the human body's systems covered in a typical first year college level course. The course covers anatomical terminology, basic biochemistry, cells and tissues, and the integument, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic/immune, respiratory, digestive, urinary, and reproductive systems. This course will also introduce common human disease processes. The laboratory component of the course includes microscopic anatomical studies, dissections, and the study of physiological processes via experimentation. **UC/CSU**

### **3530 Chemistry**

Two Semesters

Prerequisite: Satisfactory completion of biology and Algebra II/Trig (may be taken concurrently)

This is a college-preparatory laboratory course which builds on the introduction of biochemistry in biology. Emphasis will be placed on atomic and molecular structure, mathematical problem-solving, the periodic table of the elements, stoichiometry, chemical bonding, acid-base chemistry, thermodynamics and quantum theory. **UC/CSU**

### **3640 Astronomy**

Two Semesters

Prerequisite: Satisfactory completion of Algebra I and currently enrolled in geometry or higher-level math

This course covers the discoveries, equipment and methods of astronomy from historical constructs through historical instrumentation and discoveries to current research. Laboratory work guides students toward recreating important astronomical discoveries. Basic physics concepts pertaining to astrophysics will be emphasized in this course as well. A Biblical young universe/earth worldview will be focused on throughout the course along with theories of conventional astronomy and their weaknesses. **UC/CSU**



### **3641 Honors Astronomy**

Two Semesters

Prerequisite: Satisfactory completion of Biology and Algebra II/Trig (with teacher approval Algebra II/Trig may be taken concurrently)

This course will cover everything covered in Astronomy with the addition of five more chapters—more depth and breadth. Students will be expected to compute astronomical data mathematically using algebra and trigonometry, and will be expected to do more astronomical observations and current studies in astronomy research along with current studies of creation astronomy. **UC/CSU**

### **3645 Physics**

Two Semesters

Prerequisite: Satisfactory completion of Algebra I and currently enrolled in geometry or higher-level math

This course is a study of conceptual physics focusing on understanding how physical phenomena occur. Concepts are presented in a practical format with equations as guides to thinking. The various laws of physics will be explored and explained as the bases for various physical interactions such as gravity, energy, heat, forces, velocity, momentum, etc. **UC/CSU**

### **3650 AP Physics 1 (Dual Credit Option)**

Two Semesters

Prerequisite: Successful completion of Algebra II/Trig (concurrent enrollment in Precalculus is highly recommended); Algebra II/Trig may be taken concurrently if student has completed Conceptual Physics and/or consulted with the teacher

Advanced Placement Physics involves a qualitative and quantitative study of the central concepts of physics with emphasis on critical thinking, discovery through observation, and algebraic problem solving as related to physical phenomena. Topics covered are kinematics, Newton's laws, circular motion and universal law of gravitation, simple harmonic motion, linear momentum and impulse, work and energy, rotational motion, electrostatics, DC circuits, mechanical waves and sound. This is a university level course designed primarily for those students who are interested in careers in engineering and/or the sciences. Students who do well on the AP exam in the spring may be eligible to receive college credit. This course also has a dual credit option available with Colorado Christian University: Students are eligible to earn college credits which are fully transferable to most universities by paying an additional fee to CCU and completing all course requirements. **UC/CSU**

### **3655 AP Physics 2 (Dual Credit Option)**

Two Semesters

Prerequisite: Successful completion of AP Physics 1, minimum score of 2 on AP Physics 1 exam, and approval of AP Physics 1 teacher.

Advanced Placement Physics involves a qualitative and quantitative study of the central concepts of physics with emphasis on critical thinking, discovery through observation, and algebraic problem solving as related to physical phenomena. Topics covered are thermodynamics, fluids, electrostatics, circuits, magnetism, geometric physical optics, quantum physics, atomic and nuclear physics. This is a university level course designed primarily for those students who are interested in careers in engineering and/or the sciences. Students who do well on the AP exam in the spring may be eligible to receive college credit. This course also has a dual credit option available with Colorado Christian University: Students are eligible to earn college credits which are fully transferable to most universities by paying an additional fee to CCU and completing all course requirements. **UC/CSU**

## **Social Science**

### **1510 World History**

Two Semesters

Prerequisite: None

World History is a freshman level course designed to establish in the mind of the student the preeminence of God in the affairs of man throughout history. This course will cover the major historical events starting with creation and ending with the present. It is designed to provide an opportunity for the student to gain a richer understanding of our Christian heritage while developing the academic skills necessary for upper level history courses. The student will work to develop critical thinking and reasoning skills. To receive credit for this course, students must complete a visual project for the annual history fair as well as a research paper written in cooperation with the English I class. **UC/CSU**

### **1530 United States History**

Two Semesters

Prerequisite: None

United States History is a course required for graduation. The goal of this course is to demonstrate the emergence of a great country under God's guidance and intervention. This course is designed to provide an opportunity for the student to gain a richer understanding of our Christian heritage while developing the academic skills necessary for upper level history and social studies courses. **UC/CSU**

### **1641 US Government & Politics/1640 Economics**

Two Semesters

Prerequisite: None

US Government & Politics is a fall semester course designed to give students a thorough understanding of the structure and process of our government including the function and operation of each branch. As students understand their rights and responsibilities in this country, they are able to become informed citizens who become involved in the political process. Economics is a spring semester course which introduces students to the basic principles of America's complex economic system including competition, supply and demand, property and monetary and fiscal policy. It is designed to help students develop analytical thinking and reasoning skills necessary to become effective, responsible citizens and consumers. **UC/CSU**

### **1642 AP US Government & Politics**

Two Semesters

Prerequisites: Senior status; able to read and understand college-level material; successful completion of writing assessment

This is a year-long course that integrates government and economics and meets the state mandated civics/economics requirements. The purpose of this class is to examine government at the federal, state, and local levels. Throughout the course, students will consider the ways in which government, in this country, is organized, the ways in which people participate, the many functions that government has and the way in which it carries out those functions. Students will examine how their faith will influence their participation in civics and how God and government can be connected. Class activities will include lectures, mini projects, simulations, group work, and small group discussions concerning the organization and tasks of governments. **UC/CSU**

### **1550 AP United States History**

Two Semesters

Prerequisite: A in World History and English II/Honors English II; B in World History and English II/Honors English II considered with teacher recommendation and meeting with APUSH teacher; successful completion of a writing assessment

This advanced placement course provides an in-depth survey of US History designed to demonstrate the emergence of a great country under God's guidance and intervention. The class emphasizes extensive reading, writing and primary source analysis. This course is intended to enhance the student skills of critical thinking, document analysis, information organization and essay writing. Students may earn college credit if they pass the Advanced Placement exam given in the spring. **UC/CSU**

### **1520 AP European History**

Two Semesters

Prerequisite: A in both most recent English class and World History; B in English and World History considered with teacher recommendation and meeting with AP Euro teacher; successful completion of writing assessment

This advanced placement course provides an in-depth survey of Western European history from 1350 to the present. The class emphasizes extensive reading, writing and primary source analysis. This course is intended to enhance the student skills of critical thinking, document analysis, information organization and essay writing. Students may earn college credit if they pass the Advanced Placement exam given in the spring. **UC/CSU**

### **1710 AP Psychology**

Two Semesters

Prerequisite: Junior or Senior Status (Seniors receive priority); seniors need grades of A/B in prior English classes; juniors need grades of A/B in prior English classes and successful completion of writing assessment

The AP Psychology course is designed to be the equivalent of the Introduction to Psychology course usually taken during the first year of college. Students can potentially earn college credit if they score well on the AP Exam in May. It is a course designed "to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice" (*Advanced Placement Course Description in Psychology*). Areas of study for this course include personality development, emotional development, mental health, parenting principles, psychoanalysis, learning, family and social relationships, communication, systems of fundamental psychology, and a systematic integration of biblical principles to human behavior and cognition. **UC/CSU**

## **Technology**

### **7600 Advanced Placement Computer Science Principles**

Two Semesters

Prerequisite: Successful completion of Algebra 1 and Teacher Approval

The internet and innovation provide a narrative arc for this course, a thread connecting all of the units. The course starts with learning about what is involved in sending a single bit of information from one place to another and ends with students developing small **applications** of

their own design that live on the web. The AP Assessment consists of a multiple-choice exam and two “through course” assessments called the AP Performance Tasks (PTs). This is a rigorous course of study and will require a significant amount of work outside the classroom. **UC/CSU**

### **7620 Introduction to Computer Programming**

Two Semesters

Prerequisite: Teacher approval

This course introduces students to the basic concepts of computer programming using the Python computer language. This is a college level course and requires self-discipline and self-motivation in order to succeed. The students will demonstrate their computer language skills by passing rigorous tests and creating complex computer games. Limited enrollment.

### **7730 Yearbook**

Two Semesters

Prerequisite: Advisor approval

Students in this class will produce the *Flight* yearbook. Writing, photography and page-design skills will be emphasized along with team work and adherence to strict deadlines. Extra after-school hours are required to meet obligations. Enrollment is limited by process of application.

## **Engineering**

### **5000 Introduction to Engineering Design**

Two Semesters

Prerequisite: Minimum grade of B in Algebra I or teacher approval

This course is a high school level foundation course in the PLTW Engineering Program. In IED, students are introduced to the engineering profession and a common approach to the solution of engineering problems, an engineering design process. Utilizing the activity-project-problem-based (APB) teaching and learning pedagogy, students will progress from completing structured activities to solving open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. **UC/CSU** (may be used as 3<sup>rd</sup> year science elective)

### **5010 Principles of Engineering**

Two Semesters

Prerequisite: Successful completion of IED; minimum grade of B in Algebra I & Geometry; students may be able to earn honors credit with qualifying score on PLTW End of Course exam

This course is a foundation course of the high school engineering pathway. This survey course exposes students to some of the major concepts that they will encounter in a postsecondary engineering course of study. Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of materials and structures, automation, and kinematics. The course applies and concurrently develops secondary level knowledge and skills in mathematics, science, and technology. **UC/CSU** (may be used as 3<sup>rd</sup> year science elective)

## **5020 Aerospace Engineering**

Two Semesters

Prerequisite: Successful completion of IED and/or PE; minimum grade of B in Algebra I & Geometry; students may be able to earn honors credit with qualifying score on PLTW End of Course exam

This course is one of the specialization courses in the PLTW Engineering program. The course deepens the skills and knowledge of an engineering student within the context of atmospheric and space flight. Students explore the fundamentals of flight in air and space as they bring the concepts to life by designing and testing components related to flight such as an airfoil, propulsion system, and a rocket. They learn orbital mechanics concepts and apply these by creating models using industry-standard software. They also apply aerospace concepts to alternative applications such as a wind turbine and parachute. Students simulate a progression of operations to explore a planet, including creating a map of the terrain with a model satellite and using the map to execute a mission using an autonomous robot. **UC/CSU** (may be used as 3<sup>rd</sup> year science elective)

## **Other Electives**

### **8205 Student Government**

Two Semesters

Prerequisite: Must be elected to an office or committee position; must have and maintain a minimum 2.75 GPA; must have fewer than 25 demerits throughout the year; must be available to attend various leadership planning retreats in the summer.

Student Government plans and executes the school spiritual and social events such as All School Retreat, Spiritual Emphasis Week, Walk-a-thon, Homecoming, and Junior-Senior Banquet. The class is also involved all year long with fundraising activities to help fund these school events.

### **8332 Office Aide**

Two Semesters

Prerequisite: Office approval

### **8337 Teacher Aide**

Two Semesters

Prerequisite: Teacher approval