

## Graduation Requirements

The Bear Creek School's curriculum is a rigorous college preparatory program. All students take a balanced and comprehensive core of classes. Advanced Placement and Honors courses are offered.

The following graduation requirements allow students to meet or exceed the requirements for colleges and universities. All students must complete their senior year on the Bear Creek campus to qualify for graduation.

### Required Credits

- 4.5 credits English and Rhetoric
- 4.5 credits History<sup>1</sup> (including Washington State history and government)
- 3.0 credits Mathematics<sup>2</sup>
- 3.0 credits Science<sup>2</sup>
- 3.0 credits Languages<sup>2</sup> (credits in the same language)
- 3.0 credits Christian Studies
- 1.5 credits Physical Education
- 0.5 credits Health
- 1.0 credits Fine Arts<sup>3</sup>
- 1.5 credits Additional (electives and/or additional courses in required subjects)
- 0.5 credits Senior Capstone Project
- 27.0 credits (minimum)

### Required Community Service

Each Bear Creek graduate must complete 100 total hours of community service which may be completed at any point during grades 9-12. To help students remain consistently involved, each year students are required to serve four hours in the local community, four hours at Bear Creek, and two hours globally, all of which are credited toward the 100-hour graduation requirement.

Transfer students have two options for completing this requirement:

1. A student may prorate 25 service hours per year he/she was enrolled elsewhere.
2. A student may provide satisfactory official documentation of previous service completed.

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<sup>1</sup> Students who have successfully completed grade 8 at Bear Creek have met the Washington State history and government requirement. Transfer students entering Bear Creek after grade 8 may be required to fulfill this requirement by taking a JanTerm course or with independent study arranged through the Registrar.

<sup>2</sup> Students must have 4.0 credits in one of the following subjects: Math, Science, or Languages.

<sup>3</sup> The University of California requires one full year of music (band or choir), dance, or visual art.

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### Christian Studies

**CS 9 Early Christian Thought and Practice:** In this course students connect yesterday's faith lessons with today's life of faith. Students explore the ancient Church (1<sup>st</sup> through 5<sup>th</sup> centuries A.D.), discovering how fundamentals of the faith held today were first established. Students learn that believers join a great tradition and that the beliefs, struggles, and successes of the Church are all part of a greater story that God is working out until Jesus returns. Specifically, the course addresses the following questions: How did the early Church understand Jesus as God and man? How did we get the Bible? How did the Church develop from the disciples to the Roman Empire? What struggles did the early Church have in relation to prevailing culture? What did the ancients think is real? What is the value of non-Christian thought to Christian thought? (0.5 credit)

**CS 10.1 Medieval Christian Thought and Practice:** In this course students engage in a study of medieval Christian thought and practice, including the relationship of empire, papacy, monastery and scholasticism, as well as important theology and history of the Protestant and Catholic Reformations. Students explore the nature of philosophy by asking "how we can know something is true" and "how we know God exists" as well as how the medieval Church answered these questions. Throughout the class, students take time to practice their faith and draw encouragement from the rich history of spiritual practice during this period. Students apply important truths and practices learned during this historical period to their lives today as followers of Christ. The course addresses the following questions: How can I be saved? How do Christians express devotion to Christ? How do I interpret Scripture? What does it mean to be the universal Church in the midst of schism? As a Christian, who has authority in my life? How can I know what is true? (0.5 credit)

**CS 10.2 Logic:** In this course students address issues surrounding precise thinking and logic. After consideration of a Christian foundation for logic and logical first principles, students study right reason, valid inferences and the attending fallacies, formal and informal. Students learn to apply the rules of logic through examination of statements and arguments from both cultural and biblical sources. (0.5 credit)

**CS 11 Modern Christian Thought and Practice:** In this course, students engage in a study of modern Christian thought and practice, particularly as it has been influenced by and engaged with modern thought in general. Students will analyze the question raised by the ethicist Charles Taylor: What impact has secular thinking had on modern understanding of self and our relationship with others? Over the course of the semester, students study the differences between secular thinking and transcendent thinking and the relationship between faith and reason. Students take in-depth looks at ethics, epistemology, human self, and how we should live. (0.5 credit)

**CS 12 Worldview Capstone:** In this course students learn to engage multiple worldviews and examine how they compare and contrast with each other. Students look at the distinct responses to core worldview areas such as man's basic problem and how to solve it. Students examine lingering struggles they may have with the Christian worldview and study how Christians have addressed those issues. Students explore answers to the following questions: What are the distinctive parts of the Christian worldview? How do I identify someone's worldview? How do I understand difficult issues with Christianity? Can I articulate my worldview? Finally, students begin to prepare for their Senior Capstone Project by selecting a topic for approval and making any necessary arrangements before the project begins in May. (1.0 credit)

## English and Rhetoric

**E 9 Honors Ancient Literature:** In this course students explore the ancient idea of "hero" by reading ancient literature from the Sumerian, Hebrew, Greek, Roman, and Anglo-Saxon cultures. In addition to reading literature, students memorize literary terms that inform their study of various texts. The writing component of the class entails studying grammar in context and crafting persuasive, compare/contrast, and timed writings. (1.0 credit)

**E 10 Honors Medieval and Renaissance Literature:** This course covers various genres of Medieval and Renaissance literature through the reading of epic poetry, lyric poetry, drama, and novel. The biographical, historical, and philosophical contexts of each work are the focus of class discussion. Writing centers on the development of analytical, persuasive, and expository composition. Basic grammar skills are reviewed and developed further in the students' writing and selected assignments. The review of key literary terms is incorporated throughout the course. Through writing, reading, listening, and speaking, students develop their critical thinking skills. (1.0 credit)

**E 11.1 Honors Enlightenment and American Literature:** Specific literary eras—the Enlightenment, Romanticism, Realism, Modernism, and Post-Modernism—are considered from the standpoint of American authors in the context of fiction (e.g. *The Great Gatsby*) and non-fiction (e.g. *The Narrative of the Life of Frederick Douglass*). Students engage in selected course readings closely and critically, giving attention both to the details of language such as syntax, diction, imagery, schemes, tropes, and devices, as well as worldview ideology and critical literary theory. Compositions for this course are based on rhetorical modes such as narration and process/analysis, in addition to SAT-style essays. The overall course goal is to trace the progression of ideas and themes throughout the eras, understanding what the American experience looks like in many times and places while developing a personal and academic writing style. (1.0 credit)

**E 11.1 Advanced Placement English Language and Composition:** Students develop their skills as close readers of text and adept writers of arguments. Various pieces of American literature and a diverse selection of nonfiction spanning six hundred years serve as the context for these readings and arguments. Students work on building their vocabulary of literary terms as a way to understand methods central to nonfiction. This course prepares students to take the AP Language and Composition exam which focuses on the analysis of style, the crafting of arguments, and the synthesizing of sources around an argument. (1.0 credit)

**E 11.2 Rhetoric:** This course cultivates eloquent speaking by studying and practicing classical rhetorical theory. Students develop an understanding of classical rhetoric by writing and delivering a series of short speeches that focus on developing delivery skills such as eye contact, vocal energy, posture, and pausing. While continuing to develop their delivery tactics, students then move to a narrative speech and devotional speech. After these speeches, the students propose a thesis and antithesis that argue two sides to a contemporary issue of their choosing. Throughout the course, students discuss excerpts from Plato's *Phaedrus*, Aristotle's *Rhetoric*, Augustine's *On Christian Doctrine*, and Cicero's *De Oratore*. (0.5 credit)

**E 12 Advanced Placement English Literature and Composition:** This course engages students in the careful reading and critical analysis of imaginative (fictitious and poetic) literature through the ages. Writing assignments include expository, analytical, and argumentative essays. Students study the elements of style, correct and academic grammatical construction, and logical organization of ideas. Students develop the vocabulary necessary for college-level reading and writing. (1.0 credit)

**E 12 Honors Senior English:** This course explores the collegiate themes of society, men, women, and psychological development. Seniors approach these themes through the rhetoric stage and a Christian worldview, interpreting, analyzing, and defending their beliefs in the form of discussions, essays, and creative writing. Literature from all eras serves as the springboard for students' personal reflection, historical understanding, and literary evaluation. (1.0 credit)

### Fine Arts: *Performing Arts*

**Advanced Placement Music Theory:** Skills developed in this course include harmonic, melodic, and rhythmic dictation, harmonic analysis, structural analysis, ear training, and sight-singing. The course is for students who are planning to study music while in college or want further technical study in music. This is not a performance based course. The content of the AP Music Theory course is roughly equivalent to the first semester of college-level music theory. This class meets during zero period. Prerequisite: Students must complete and pass a music fundamentals test or take a music fundamentals course over the summer. (1.0 credit)

**Concert Band:** Upper School concert band is an instrumental performing ensemble. Concert band members continue to master their skills on a musical instrument. The concert band performs at two regular concerts in addition to special events such as Commencement, pit orchestra for our musical productions, and high school music festivals. Concert band members are also encouraged to play with the Pep Band during home basketball games. Students in the concert band are eligible to participate in the Northlake Music Region Solo and Ensemble Contest, as well as to audition for the All-State and All-Northwest honor bands and orchestras. This year-long course may be taken more than once. Prior instrument knowledge required. (1.0 credit)

**Concert Choir:** Upper School concert choir is a performing ensemble with multiple required performances each year, including two regular concerts, Commencement, and high school choral festivals. Students in the choir program are eligible to participate in the Northlake Music Region Solo and Ensemble Contest, as well as to audition for the All-State and All-Northwest honor choirs. Emphasis is placed on vocal training, sight singing, music theory, and choral blend. This year-long course may be taken more than once. (1.0 credit)

**Drama:** This fall or spring semester course introduces the various elements of drama, including character development, voice, motion, and physical expression. In addition to gaining knowledge about the theater, a small portion of the class is committed to improvisational and pantomime techniques. The majority of class time is spent developing a production, which is presented at the end of the semester. All students participate in this production. One of the two annual productions is typically a play by William Shakespeare. This course may be taken more than once. (0.5 credit)

**Jazz Band:** In this course, students learn to play jazz styles on their own instruments. All instruments are welcome. The class explores the jazz styles of swing, Latin, and funk. Students learn and build on improvisation principals. Students in this class perform at two concerts each year in addition to many other school and community events. Jazz band members are also encouraged to play with the Pep Band during home basketball games. The band rehearses 2-3 times a week before school as a zero period class. Jazz combos may be formed for rehearsals during other times. This year-long course may be taken more than once. Prior instrument knowledge required. (0.5 credit, full year)

**Technical Theater:** This fall or spring semester course will survey the various elements of a theater production, exposing students to audio engineering, stage lighting, set design, set construction, and stage management. Students will perform the technical roles for the fall or spring Upper School drama productions (sound, lighting, stage management, set and scene movement) and may have the opportunity to assist with various Lower School, Early Middle School, and Middle School productions. Some after school and weekend rehearsals are required in addition to all scheduled Upper School fall or spring drama performances. (0.5 credit)

**Mens and Womens Ensembles:** These non-auditioned vocal ensembles are led by students from concert choir with supervision by the Choir Director and are open to any Upper School student who would like to sing. Interested singers may sign up with the Choir Director, who will communicate their interest to the student leaders. Ensembles usually rehearse once per week during office hours or occasionally before school as determined by the student leaders. Each ensemble has the opportunity to perform in two concerts annually. (no credit)

**Mixed Ensemble:** Mixed ensemble is an auditioned class open to concert choir students who exhibit advanced skill levels in music literacy and vocal technique. The content of the course is designed to develop technical, musical, and performance skills. The music requires a desire for excellence on the part of its members. Students perform in two concerts annually, local and district choral festivals, and other performance opportunities. Music performed covers a wide range of historical periods and musical styles. The class meets twice each week during office hours or before school with occasional additional rehearsals as needed. (0.5 credit, full year)

## Fine Arts: *Visual Arts*

**Graphic Design 1:** In this course, students examine the principles of design utilizing modern digital technology. Students acquire an understanding of the process of design, design fundamentals, digital art tools, and creative thinking. Students gain a basic proficiency in Adobe® Creative Cloud applications (Photoshop®, Illustrator®, InDesign®). This course includes project-based learning, lectures, and critiques. (0.5 credit)

**Graphic Design 2:** Using the working knowledge obtained in Graphics Design 1, students further enhance their technical abilities and advanced knowledge of design principles. Students delve deeper into the creative opportunities of Adobe® Creative Cloud applications (Photoshop®, Illustrator®, InDesign®) and other programs, while developing their voices as visual artists. Prerequisite: Graphic Design 1 (0.5 credit)

**Photography 1:** In this course, students learn about the history of photography, as well as the elements and principles of art through photography. Through a series of projects, students gain proficiency in working with digital single lens reflex (DSLR) cameras, digital photo editing, and basic photo composition. Students explore the use of shutter speed, ISO, exposure, focal length, depth of field, and lighting. (0.5 credit)

**Photography 2:** Using the working knowledge obtained in Photography 1, students build their skills as they transition from studying techniques to exploring photography further as an art form. Students learn advanced editing skills, use studio equipment, explore the art of composition and create a comprehensive portfolio by the end of the semester. Prerequisite: Photography 1 (0.5 credit)

**Advanced Graphics and Photography:** This course is designed for students with a serious interest in the practical application of digital art and photography. While exploring photographic and digital media with the camera and computer, each student develops a body of work that reflects a range of problem-solving and ideation, personal voice, and versatility with techniques to demonstrate his or her abilities compiling a personal portfolio by the end of the term. Prerequisite: Photography 1 and 2; or Graphic Design 1 and 2; or permission of instructor. (0.5 credit)

**Studio Art 1:** This course introduces students to the elements of visual art through an exploration of foundational skills and techniques in various media including drawing, painting, collage, and/or sculpture. This course includes project construction, lecture, critique, and becomes the foundation needed to progress through other art courses. (0.5 credit)

**Studio Art 2:** Students build on their knowledge gained in Studio Art 1 to further utilize and integrate the elements of visual art while being introduced to the principles of design. Emphasis is placed on color mixing, painting techniques, direct observation, mixed media concepts, as well as further understanding of composition, color theory, critical thinking, and problem-solving. This course involves project construction, lecture, and critique. Prerequisite: Studio Art 1 (0.5 credit)

**Studio Art 3:** Students expand skills acquired in Studio Art 1 and 2 by further developing their drawing and conceptual abilities. In this course, students explore intermediate to advanced techniques in drawing and various art media while focusing on compositional principles of visual art and strengthening visual problem-solving skills. A variety of media are explored including graphite, pen and ink, colored pencil, charcoal, oil pastel, acrylics, collage, sculpture, and/or mixed media. This course requires advanced commitment, focus, and drawing capabilities. Prerequisites: Studio Art 1 and Studio Art 2 (0.5 credit)

**Sculpture and Mixed Media:** Students utilize and integrate the elements and principles of visual art in the concentrated area of sculpture and mixed media art. The relationship between form, space, and concept is explored as students expand their understanding of three-dimensional art processes and materials. This course involves project construction, lecture, and critique. (0.5 credit)

**Advanced Studio Art 1:** In this year-long course, student enhance technical and conceptual skills, develop a personal artistic style, and refine the direction of his or her art. Students develop portfolio pieces and delve into advanced media techniques. This course requires a high level of commitment which may require out of class work and project time. Prerequisites: Studio Art 1, Studio Art 2, and Studio Art 3, or permission of instructor (1.0 credit)

**Advanced Studio Art 2:** This year-long course develops the student-artist. Each student collaborates with the instructor to develop a body of artwork in the medium of his or her choice. Media pursued may include drawing, painting, sculpture, computer generated graphics, photography, mixed media, or a blend of art disciplines for which the student has a particular passion. Each student develops a portfolio and an artist statement, builds an artist resume, and possibly plans a gallery show (in his or her senior year). This course is highly recommended for students who are planning to study art in college and/or possess a deep passion for art. This course requires a high level of commitment which may require out of class work and project time. Prerequisites: Studio Art 1, Studio Art 2, and Studio Art 3, plus one additional visual arts course (Sculpture and Mixed Media, Graphic Design, Photography, or Advanced Studio Art 1), or permission of instructor (1.0 credit)

## General Electives

**Advanced Placement Computer Science A:** The course introduces students to computer science with 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 using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. This class meets during zero period. Prerequisite: Algebra 2 recommended but not required. (1.0 credit)

**Forensics (Debate):** Students in this independent study course develop the groundwork for sound argumentation and debate. Focusing on the processes used to formulate lines of reasoning to persuade or support one's viewpoint, students learn to recognize and employ argumentation in speeches/lectures, writing, legal venues, philosophy, and politics. Students learn to debate one another (in groups and individually) by sharing opposite viewpoints, trading arguments in an attempt to discredit and disprove the opponent's viewpoint while strengthening their own. Depending on enrollment and availability, this course may be offered as an independent study class. (0.5 credit)

**Sports Anatomy:** This course integrates the study of the structures and functions of the human body as related to sports and sports medicine. Areas of study include the organization and integration of human body systems; protection, support, and movement; medical diagnosis and treatment; and reproduction, growth, and development. Hands-on learning helps students apply these concepts, and when possible, careers related to medicine, research, health care and modern medical technology are emphasized throughout the curriculum. Case studies concerning diseases and disorders are explored. (0.5 credit)

**Yearbook:** In this class students publish *Bear Witness*, the annual edition of yearbook, incorporating writing, interviewing, photography, and design. Students develop skills including making team decisions, presenting and pitching ideas, and managing a variety of tasks within a series of deadlines. This course may be taken more than once. (1.0 credit)

## History

**H 9 Honors Ancient and World History:** This course focuses on the development of Western civilization, which forms the basis of United States culture. Students will study cultural developments, religions, trade, communication, and the role of geography in determining the course of historical events. In the second semester, students examine some of the great non-Western civilizations. As well as gaining factual knowledge, students develop their skills in writing, critical thinking, discussion, and evaluation of primary sources. (1.0 credit)

**H 10 Honors European History:** European History covers the story of European civilization from the middle ages through the Industrial Revolution. In addition to historical content, students develop skills in careful reading, historical analysis, and expressing ideas orally and in writing. (1.0 credit)

**H 10 Advanced Placement European History:** Advanced Placement European History is a challenging course that is intended to be the equivalent of an introductory-level college course. Students develop the intellectually virtuous habits of reading carefully, clearly analyzing both evidence and ideas, and expressing historical understanding orally and in writing. Students cultivate a love of and a respect for the past and gain a thorough understanding of the main events and ideas in modern European history. (1.0 credit)

**H 11 Honors United States History:** This course is an in-depth study of United States history and is designed to provide students with a solid understanding of the development of the United States. Students explore geographic, political, cultural, and economic characteristics of American history from the settlement of Jamestown through the presidency of Ronald Reagan. Readings from the text and primary sources, discussions, lectures, and written critical analysis are utilized to facilitate the study of U.S. history. (1.0 credit)



**H 11 Advanced Placement United States History:** Advanced Placement United States History is a rigorous study of U.S. history from the early settlement of the nation, through the presidency of Ronald Reagan. Students work to master content, which requires a significant amount of reading. Reading is primarily drawn from our classroom text, but also includes some primary sources. The Advanced Placement exam requires the writing of three essays, so in preparation for the exam, students will work to hone their writing skills. In this course, students gain knowledge of the history of the U.S. and learn to critically assess issues verbally and through written work. (1.0 credit)

**H 12.1 Art History, Culture, and Appreciation:** Art History is a survey of western art and aesthetics from the Renaissance to the present. The course introduces students to the broad artistic and cultural heritage of Western Civilization and particularly challenges students to reflect on beauty and how it relates to truth and goodness. (0.5 credit)

**H 12.2 United States Government and Politics:** This course is a survey of the origin, structure, and functions of the United States government. Students are introduced to basic economic concepts, a comparison of other types of political systems, and an overview of American foreign policy. Readings in current events, classroom discussions, and completion of a research paper are key components of the course. (0.5 credit)

## Languages

**English Language Learning (ELL):** This course provides instruction and support for new international students in composition, reading, speaking, listening, grammar, and vocabulary. All of these skills are honed, preparing students for independent success in the Upper School classroom and college. Additional support in academic subjects will be offered as needed and during office hours appointments. A student may take this course a second time if he/she scores less than 89 on the iBT. (1.0 credit)

**French I:** Students in this course are introduced to French through a total immersion setting. By the second week, classes are conducted exclusively in French. Using the Accelerative Integrated Methodology (AIM), students quickly begin to think directly in French and engage in spontaneous conversation. The first semester focuses on oral proficiency and reading comprehension with grammar modeled in every activity. As students become more comfortable speaking and understanding meaning within context, formal introduction of the grammar and vocabulary begins and students engage in creative writing. Using a short text studied throughout the year, students perform a play in French. (1.0 credit)

**French II:** Building on the foundation of oral and reading proficiency built in French I, students develop their skills for producing sustained speech and creative writing in French using Accelerative Integrated Methodology (AIM) curriculum. Grammar continues to be introduced both inductively and formally with a focus on narration in the past tense. Each unit focuses on a new set of vocabulary. Students learn to talk about people and professions, personal and leisure-time activities, household objects, and where they live. Reading selections lengthen and vary as students begin to study the history of France using a simplified text with comprehension questions. As in French I, students perform a short play in French. Prerequisite: French I (1.0 credit)

**French III:** French III students engage more complex sentence structures, including all major verb tenses. Students learn to identify and use the subjunctive and conditional moods, along with finer points of French grammar such as pronoun use and direct object agreements. Communicative activities emphasize daily personal routines, describing detailed physical appearance, vacationing and leisure activities, and practical aspects of daily life and travel in France. Students complete two semester-long projects: first researching the life and interpreting the work of a French artist as well as preparing an itinerary for an imaginary trip around the French-speaking world. A typical day may include singing a classic or contemporary song, studying a short story, listening to an interview, analyzing a painting, or discussing a chapter in an abridged novel... All in French. Prerequisite: French II (1.0 credit)

**French IV:** This course is designed for students who have met The Bear Creek School's language requirement but wish to continue French at a more advanced level. Students start with a review and refinement of important and troublesome grammatical structures along with a substantial expansion of vocabulary. This provides the necessary basis for critical analysis of literature and film through speaking and writing. Geography, culture, and history of the Francophone world are emphasized through short stories, film and television clips, and research projects. Students help drive the themes of the writing and speaking projects based on their own interests and inquiries. Prerequisite: French III (1.0 credit)

**Latin I:** Latin I introduces the case system with emphasis on direct and indirect objects, objects of prepositions and adjective-noun agreement using the first, second, and third declensions. Emphasis is on the present active verb conjugations, but the perfect and imperfect tenses, and the passive voice are also introduced. English derivatives are learned with all vocabulary. Emphasis is on reading comprehension, but some speaking and listening is required. Students also learn fundamentals of Roman history and culture. *This class is occasionally offered to new Bear Creek students who did not take Latin in Middle School.* (1.0 credit)

**Latin II:** Latin II provides an introduction to the complex sentence. Students master the basic uses of the cases in all declensions, many pronouns, and the use of the relative pronoun. They learn indirect statement, active and passive voice of verbs, all tenses of the indicative, and the perfect participles. Students also can expect to double their Latin vocabulary, to learn many Latin quotations, and to continue to build their fluency with English derivatives. Students explore Roman to early medieval political history, Roman literature and mythology, classical education, art, architecture, and early Christian writings. Prerequisite: Latin I or Upper School Division Head approval (1.0 credit)

**Latin III:** In this course, students master the components of the complex sentence. They learn the subjunctive mood and its uses in purpose clauses, indirect command, and question. Students continue to master the indirect statement and its sequence of tenses. Latin vocabulary increases significantly along with student mastery of Latin word roots in English. Besides adapted passages from medieval and Renaissance authors, students read unadapted passages of classical Latin literature. Students are introduced to Latin literature and integrate what they already know about Western civilization and Christianity with their reading. Prerequisite: Latin II (1.0 credit)

**Latin IV:** Students continue to improve their handling of complex sentences while being introduced to Latin literature. Students are expected to know the components of the complex sentence, and continue to master it by reading more original passages of Latin. Students begin to understand the range of meanings available in Latin vocabulary and how this affects the reading of literature. Students begin to notice and think about genre, figured language, and quantitative meter. The importance of classical literary style in the Renaissance is considered. Through assigned reading, students continue to apply and extend what they know about Western civilization and Christianity. *Students also may concurrently register for and receive college credit from the University of Washington's Latin 103 through "UW in the High School".* Prerequisite: Latin III (1.0 credit)

**Latin V:** This course is a bridge between Latin IV and AP Latin. Students use the same textbooks as AP Latin students, but do not read as much or as fast. Readings include selections from the AP curriculum such as Vergil's *The Aeneid*, and Caesar's *Commentaries on the Gallic Wars*. Students will become familiar with the AP Latin exam and methods including literal translation, syntax questions, short literary essays, and sight reading. Students read selections from other classical, late classical (such as Augustine), medieval, and Renaissance authors at the instructor's discretion. Homework is light (15 to 20 minutes) and intermittent. Prerequisite: Latin IV (1.0 credit)

**Advanced Placement Latin:** The AP Latin course is based on readings in Vergil's poetic masterpiece, *The Aeneid*, and Caesar's prose masterpiece, *Commentaries on the Gallic Wars*. Students read original Latin literature in student editions with grammar and vocabulary assistance. They increase reading fluency while delving deeply into the historical and cultural context and reflecting on why these works have been so influential in Western literature and civilization. Students prepare for the AP exam by sharpening their grammar and syntax, increasing vocabulary, sight-reading unfamiliar passages of other authors to understand the literary use of figures of sound, thought, and quantitative meter, and by writing short essays. Prerequisite: Latin IV, Latin V, or permission of the instructor (1.0 credit)

**Spanish I:** In this course the immersion method is used to introduce students to the spoken language. Students learn basic themes related to their lives, such as greetings, descriptions of physical characteristics and character traits, family, numbers, parts of the body, time, and emotions. Students learn to manipulate language by preparing to perform a play that is presented at the end of the year. Students apply grammar concepts with nouns, regular and irregular verbs, adjectives, reflexives, pronouns, direct and indirect objects. Students work in pairs and small groups. (1.0 credit)

**Spanish II:** In Spanish II, students continue with the immersion model while learning to talk about their personal lives, families, feelings, and emotions. This course expands on vocabulary and grammar, including the preterite, imperfect, progressive, past perfect, and commands. Students learn to manipulate language around various topics of family, sports, food, while researching, writing, and presenting orally. Students work individually and in groups. Prerequisite: Spanish I (1.0 credit)

**Spanish III:** Students comprehend and communicate orally and in writing about a wide variety of personal, cultural, and ethical concepts. Grammar study continues throughout Spanish III, focusing on expanding concepts such as the past tenses, reflexive verbs, and if-clauses, as well as introducing the subjunctive mood. The topics discussed include relationships among family and friends, work and the community, the future of technology and medicine, and challenges facing the environment. A short detective story is introduced, as well as short literary readings and poetry from various cultures. Class is conducted in Spanish. Prerequisite: Spanish II (1.0 credit)

**Spanish IV:** In this course students continue to develop accuracy in speaking and writing through the use of more abstract vocabulary and more advanced grammar. Students seek deeper study of the social, political, and economic realities of Latin America through radio podcasts, newspaper articles, films, and novels. The class examines issues such as immigration, and students express their opinions, compare and contrast, reflect, and formulate original thoughts in a more relaxed manner. Films may include *La Misma Luna*, and texts include *Cajas de Carton*, *La Casa en Mango Street*, and works by other contemporary Spanish and Latin American authors. Prerequisite: Spanish III (1.0 credit)

## Mathematics

**Algebra 1:** Algebra is the foundational course for all further mathematics and science courses. Algebra students learn to formulize and generalize the concepts of arithmetic into a set of algorithms useful in other settings. As each skill is introduced and developed, applications to areas of mathematics, science, nature, and everyday life are included. In this course, each student develops his/her abilities in logical, critical thinking, and problem solving. Prerequisite: Pre-Algebra (1.0 credit)

**Geometry:** By enhancing logical thinking and deductive reasoning, geometry provides a foundation for problem solving that is necessary for success in subsequent math courses. The first semester focuses on the development of geometric proofs using definitions, properties, postulates, and theorems. Second semester topics include transformations, triangle similarity, right triangle trigonometry, angle and segment relationships in circles, areas of polygons, and volumes of solids. Prerequisite: Algebra 1 (1.0 credit)

**Algebra 2:** This course includes topics in linear equations, inequalities and functions, systems of linear equations and inequalities, matrices and determinants, quadratic functions, polynomials and polynomial functions, powers, roots and radicals, exponential and logarithmic functions, rational equations and functions, quadratic relations and conic sections, sequences and series, and trigonometric ratios and functions. Prerequisite: Geometry (1.0 credit)

**Precalculus:** This is a traditional precalculus course, uses the same textbook as Honors Precalculus, and covers functions, trigonometry, systems of equations, sequences, probability, and analytic geometry. The class is appropriate for students who do not plan to take a calculus course before college; however, students taking this course would be well prepared for AP Statistics. Prerequisite: Algebra 2 (1.0 credit)

**Honors Precalculus:** This course solidifies the student's knowledge of algebra, geometry, and trigonometry in preparation for enrolling in AP Calculus AB the following year. It is rigorous and fast-paced, covering topics such as functions, trigonometry, systems of equations, sequences, probability, analytic geometry, vectors, and limits. The course concludes by introducing students to calculus through limits. Prerequisite: Algebra 2 (1.0 credit)

**Advanced Placement Calculus AB:** The course of study includes properties of functions, limits, differential calculus, and integral calculus. The use of symbolic differentiation and integration utilities is included where appropriate. Prerequisite: Precalculus or Honors Precalculus (recommended) (1.0 credit)

**Advanced Placement Calculus BC:** This course is an extension of AP Calculus AB and is offered to students after they have successfully completed AP Calculus AB. Topics include the further study of limits, derivatives, definite and indefinite integrals. Students analyze planar curves given in parametric form, polar form, and vector form. The course includes the study of polynomial approximations and series with error analysis. Prerequisite: AP Calculus AB (1.0 credit)

**Advanced Placement Statistics:** The AP Statistics course is an introductory college-level statistics class designed to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Course topics include exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Prerequisite: Precalculus or Honors Precalculus. (1.0 credit)

**Multivariable Calculus:** This course builds upon the material covered in AP Calculus AB and BC. Unit 1 introduces vectors, dot-products, cross-products, projections, lines, and planes—the essential elements of linear algebra needed for navigating multi-dimensional problems. In Unit 2 students investigate vector functions, giving special attention to space curves, velocity, acceleration, tangent vectors, normal vectors, curvature, and arc-length. Unit 3 explores multivariable functions, looking at surfaces, partial derivatives, directional derivatives, gradients, tangent planes, optimization and Lagrange multipliers. In Unit 4 the focus turns to integration. Concepts include double and triple integrals in Cartesian, polar and spherical coordinates, as well as the calculation of surface area, volume, centers of mass, moments of inertia and Jacobians. The final unit turns to vector fields and line integrals. Topics include conservative vector fields, curl, flux, Green's Theorem, surface integrals, Gauss' divergence theorem and Stoke's theorem. Prerequisite: AP Calculus BC (1.0 credit)

## Physical Education

**Health:** In this course students learn the integration of physical, mental, social, and spiritual dimensions of a healthy lifestyle. The information presented covers several health issues that students analyze and discuss. Students assess their personal health habits as well as explore what the biblical view of humanity and the human body. Students become familiar with the eleven body systems. They learn strategies for healthy eating, as well as strategies to avoid unhealthy substance usage/abuse that has a negative effect on health. The course includes student certification by the American Red Cross in First Aid/AED/Hands-only CPR. This course presents current health issues from a Biblical perspective. (0.5 credit)

**Physical Education:** Students may fulfill the P.E. graduation requirement by:

- participating on a Bear Creek athletics team (0.5 credit is awarded per sports season),
- participating in the Bear Creek Ski & Snowboard Program (0.25 credit earned per season if lessons are taken),
- taking the Strength Training or Physical Education “An Active Life” electives (0.5 credit per semester), or
- participating in 29+ hours (in a semester) outside workout program approved by the P.E. and Health Department Chair (0.25 credit).

**Strength Training:** Strength Training offers students the opportunity to participate in weight and conditioning programs. The instructor guides the students to create their own sound, efficient weight training programs that meet their specific goals and objectives. This course may be taken more than once. (0.5 credit)

## Science

**S 9 Conceptual Physics:** This course approaches the subject of physics by emphasizing the *concepts* of physics, thus stimulating students’ higher level cognitive skills. The value of teaching physics conceptually is not in minimizing mathematics but in maximizing the use of students’ personal experience in the everyday world and their everyday language. Students apply algebra daily in this course. This course challenges students to study, understand, and articulate the concepts of mechanics, matter, heat, sound, light, electricity, magnetism, and nuclear energy. (1.0 credit)

**S 10 Chemistry:** Students learn basic concepts of general inorganic and physical chemistry including the structure and nature of matter, the periodic table, formula naming, atomic structure, gas laws, kinetics, and solutions. Laboratory demonstrations and experiments help students understand and apply the principles of chemistry, as well as supply them with frequent practice in the scientific method. Prerequisite: Algebra 1 (1.0 credit)

**S 10 Honors Chemistry:** This is an accelerated chemistry course designed for students with strong skills in the science and math disciplines. The course covers the fundamental concepts of chemistry in greater breadth and depth, including stoichiometry, mole calculations, molecular shape, equilibriums, redox reactions, acid-base theory, and kinetics. Students acquire an excellent foundation for the SAT Subject Test in Chemistry and the AP Chemistry course. Concurrent enrollment in Algebra 2 or higher recommended. (1.0 credit)

**S 11 Biomedicine:** In this lab-based biology course, students study, understand, and articulate core biology topics, including biochemistry, cell and molecular biology, and genetics. In addition, students will apply their biology understanding to topics of human anatomy and physiology, including several of the major body systems, and medical technology, especially forensics. Lab experiences include dissections, microscopy, and forensic techniques, among others. (1.0 credit)

**S 11 Marine Biology:** In this lab-based biology course, students study, understand, and articulate core biology topics through the framework of marine biology. The course covers biochemistry, cell and molecular biology, genetics, evolution, and ecology while students concomitantly learn about marine organisms and ecosystems. Lab experiences include studies of seawater, development and physiology of marine life, and ocean ecology. This year-long class culminates with a series of off-campus ecological field studies to evaluate, and ultimately appreciate, the Salish Sea ecosystem. (1.0 credit)

**S 11 Advanced Placement Biology:** Topics covered include biochemistry, cell structure and function, cell division, cell signaling, molecular genetics, Mendelian genetics, evolution/origins, animal and plant physiology, and ecology. These topics are covered in significant depth and breadth with extensive emphasis placed on descriptive and experimental laboratory exercises. Students learn a variety of skills such as experiment design, data recording and interpretation, statistical analysis, and operation of technical equipment. The AP Biology course is equivalent to a two-semester introductory biology course usually taken by science students during their first year of college. Prerequisite: Chemistry or Honors Chemistry (1.0 credit)

**S 12 Advanced Placement Chemistry:** Topics covered include equilibrium, kinetics, thermodynamics and thermochemistry, atomic structure, molecular structure, electrochemistry, phases of matter, and solution behavior. These concepts are explained and tested in a laboratory setting using experiments aimed at expanding the understanding of the current model and also applying that understanding to new situations and predicting the results. Emphasis is placed on understanding how and why substances act in particular ways and modeling those actions and interactions, as well as understanding how to predict results using mathematical models. The AP Chemistry course is equivalent to a year-long college-level general chemistry course taken by most science students. Prerequisites: Chemistry or Honors Chemistry, also Algebra 2 (1.0 credit)

**S 12 Advanced Placement Physics 1:** This course is equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It also introduces electric circuits. Prerequisite: Algebra 2 (1.0 credit)

*Note:* Interested students may take the AP Physics C: Mechanics (with calculus) exam with teacher approval; requires independent study. Prerequisite: AP Calculus AB

**S 12 Engineering:** This full-year course will engage students in authentic engineering practices in a project-based learning (PBL) environment. Using curriculum developed by a team of University of Texas faculty at the Cockrell School of Engineering and NASA engineers, students explore the breadth of engineering fields, learn the narrative of engineering and develop engineering design skills and habits of mind. Students design products with users in mind (designing a flashlight) and learn how engineered solutions evolve over time (imaging timeline and pin-hole camera project), use data (Excel spreadsheets for designing coffee and safer buildings), design the products of our everyday lives (reverse engineering and product redesign project), use computation and programming skills to solve fun and important challenges (programming microcontrollers to play electronic music), and work in teams to solve complex, system-level design challenges (aerial imaging project). (1.0 credit)

## Senior Capstone Project

**Senior Capstone Project:** Bear Creek's Senior Capstone Project provides an opportunity for seniors to develop and pursue a challenging, meaningful, and self-directed project in an area of personal interest during the last three weeks of the spring semester. Each senior chooses a project that demonstrates a depth of investment and insight, exhibits a significant level of personal challenge, and advances his/her ability to articulate how his/her worldview has been challenged or changed by the project experience. Students develop their projects with a faculty mentor and chronicle their work and progress in a project journal. The Senior Capstone Project culminates with a presentation of the project to a panel of faculty and peers. (0.5 credits)



## Advanced Placement® (AP) Program

Students at Bear Creek may challenge themselves in areas of particular aptitude and passion by enrolling in several Advanced Placement courses. AP courses are college-level courses taught by Bear Creek faculty with content guided by The College Board. AP courses culminate each May with a national examination in each subject area by which students may earn college credit based on their exam score (typically a 3 or higher).

Two defining elements of the AP program at Bear Creek are the scope of our AP offerings and the fact that enrollment is, essentially, open to all students. Bear Creek offers the following AP courses each year:

AP Calculus AB*	AP Literature and Composition
AP Calculus BC*	AP European History
AP Statistics*	AP U.S. History
AP Biology*	AP Latin*
AP Chemistry*	AP Music Theory*
AP Physics 1*	AP Computer Science A*
AP Language and Composition	

Additionally, students who are passionate about a subject not listed above may choose to study independently for any\*\* of the AP Exams offered by the College Board, e.g. AP Psychology, AP Macroeconomics, or AP Art History. Bear Creek will administer the AP Exam in May at the designated time. As usual, graduating seniors may submit their official AP Score Report to colleges to demonstrate mastery. Contact the Office of College and Academic Advising for more information.

Advanced Placement courses require personal discipline and independent study techniques. Students will experience an increased reading load and longer writing assignments in most AP classes. AP courses attract students who are academically motivated, personally invested, and diligent. They must be able to read perceptively and independently. Additionally, students need to be proficient in writing concise and clear essays. Students must earn at least a “B” in prior academic department coursework to qualify for AP course enrollment. See course descriptions for additional prerequisites.

Given the high commitment level and increased demand, course selection should be considered carefully. All students in grades 11 and 12 who meet qualifications should consider at least one AP course each year. Many students carry two AP courses. Students rarely take three AP courses in a single year. Due to the advanced level of course content and necessary prerequisite skills for success, all AP course selections require approval.

Students who succeed in AP courses generally do well in college as a result of the exposure to collegiate teaching and testing methodology and increased academic preparation. All AP courses are noted on the official Bear Creek transcript.

\* See course descriptions for prerequisites.

\*\* Except AP language exams which cannot be administered at Bear Creek.

## Course Planning Grid Worksheet

<b>Subject</b> <i>Required credits</i>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
<b>English</b> <i>4.5 credits</i>	Honors Ancient Literature (1.0)	Honors Medieval and Renaissance Literature (1.0)	Rhetoric (0.5)	Honors Senior English <b>or</b> AP English Literature and Composition (1.0 each)
			Honors Enlightenment and American Literature <b>or</b> AP English Language and Composition (1.0 each)	
<b>History</b> <i>4.5 credits</i> <i>(includes 0.5 credits Washington State history and government)</i>	Honors Ancient and World History (1.0)	Honors European History <b>or</b> AP European History (1.0 each)	Honors U.S. History <b>or</b> AP U.S. History (1.0 each)	Art History (0.5)
				U.S. Government and Politics (0.5)
<b>Science</b> <i>3.0 credits</i>	Conceptual Physics (1.0)	Chemistry <b>or</b> Honors Chemistry (1.0 each)	Marine Biology, Biomedicine, <b>or</b> AP Biology (1.0 each)	Engineering, AP Physics 1 <b>or</b> AP Chemistry (1.0 each)
<b>Math</b> <i>3.0 credits</i>	Algebra 1, Geometry, Algebra 2, <b>or</b> Honors Precalculus (1.0 each)	Geometry, Algebra 2, Precalculus, Honors Precalculus, <b>or</b> AP Calculus AB (1.0 each)	Algebra 2, Precalculus, Honors Precalculus, AP Statistics, AP Calculus AB <b>or</b> AP Calculus BC (1.0 each)	Precalculus, Honors Precalculus, AP Calculus AB, AP Calculus BC, Multivariable Calculus <b>or</b> AP Statistics (1.0 each)
<b>Christian Studies</b> <i>3.0 credits</i>	Early Christian Thought and Practice (0.5)	Medieval Christian Thought and Practice (0.5)	Modern Christian Thought and Practice (0.5)	Worldview Capstone (1.0)
		Logic (0.5)		
<b>Languages</b> <i>3.0 credits</i>	French, Spanish, <b>or</b> Latin	French, Spanish, <b>or</b> Latin	French, Spanish, <b>or</b> Latin	French, Spanish, <b>or</b> Latin
	Level ____	Level ____	Level ____	Level ____
<b>Health</b> <i>0.5 credits</i>	Health (0.5)			
<b>Physical Education</b> <i>1.5 credits</i> Ski & Snowboard Program (0.25) <b>or</b> BC sports team (0.5)	F			
	W			
	S			
<b>Fine Arts</b> <i>1.0 credits</i>	S1			
	S2			
<b>Additional</b> <i>1.5 credits</i>	S1			
	S2			
<b>Senior Capstone</b> <i>0.5 credits</i>	N/A	N/A	N/A	Senior Capstone Project (0.5)