

2023 - 2024

Vail Christian High School

Course Registration and Curriculum Guide



Home of the Saints

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MISSION STATEMENT

Equipping mind, body, and spirit for lives of purpose, service, and leadership.

VALUES

Our school's values succinctly express what's most important to us.

- **Faith** ~ Trust in God centered in Jesus Christ
- **Excellence** ~ The pursuit of becoming better than we once were, never ordinary but *extra*-ordinary
- **Character** ~ Qualities such as love, kindness, respect and integrity
- **Community** ~ A Vail Christian family known for its inward and outward expression of love

VISION STATEMENT

We have an exceptional faculty, a robust student body, and institutional strength. Our students and graduates are known for their Christian commitment and character, entrepreneurial spirit, creativity, and ability to solve complex, real-world problems. Operating within a Christian atmosphere based on love and respect, we achieve our vision through a laser focus on experiential learning, initiatives that connect local and global resources, and a highly-customized education to best optimize each student's full potential.

ACADEMIC PROFILE

Curriculum

The academic program at Vail Christian High School is a traditional semester schedule with 3.5 credits per semester as the preferred course load. The following shows graduation requirements (25.5 total credits) and course offerings by grade level. Complete descriptions of each course can be found starting on page 6.

<u>Graduation Requirements:</u>	<u>Courses Offered:</u>	<u>Credits:</u>	<u>Grade Level:</u>
English (4)	Pre-AP English 1	1.0	9
	Pre-AP English 2	1.0	10
	AP/DE English Language and Composition	1.0	11
	Rhetoric	1.0	11
	AP/DE English Literature and Composition	1.0	12

Graduation**Requirements:****Courses Offered:****Credits:****Grade Level:**

Math (4)	Foundations of Algebra	1.0	9
	Algebra 1	1.0	9/10
	Geometry	1.0	9/10/11
	Algebra 2	1.0	All
	Pre-Calculus	1.0	All
	AP/DE Calculus AB	1.0	11/12
	AP/DE Calculus BC	1.0	11/12
	AP/DE Statistics	1.0	12
Science (3 or 4) and Engineering	Biology (Required)	1.0	9
	Chemistry	1.0	10
	Physics	1.0	11
	AP Environmental Science	1.0	12
	AP Chemistry	1.0	11/12
	AP Physics	1.0	11/12
	PLTW Human Body Systems (DE)	1.0	11/12
	PLTW Introduction to Engineering (DE)	1.0	11/12
	PLTW Aerospace Engineering (DE)	1.0	11/12
Foreign Language (2)	Robotics I/II	.5	All
	Spanish 1	1.0	9/10
	Spanish 2	1.0	9/10/11
	Spanish 3	1.0	10/11/12
	Spanish 4	1.0	11/12
	AP Spanish	1.0	11/12
Social Studies (3.5)	Pre-AP World History and Geography	1.0	9
	AP World History	1.0	10
	AP U.S. History	1.0	11
	AP/DE Macro Economics	.5	11/12
	DE American Government (Required)	.5	11/12
Physical Education (1)	Performance P.E.	0.5	All
Fine Arts (1)	Theater	.5	All
	Vocal Ensemble	.5	All
	Studio Art I & II	.5	All
	AP Studio Art	1.0	11/12
	Worship Arts I/II	.5	All
	Art of Business 1/II	.5	All

Graduation

<u>Requirements:</u>	<u>Courses Offered:</u>	<u>Credits:</u>	<u>Grade Level:</u>
Technology (Elective Credits)	AP Computer Science Principles	1.0	All
	Digital Media I/II	.5	All
	PLTW - Cybersecurity	1	All
Electives (4)	Resource (Student Success Center)	.25	All
	Speech and Communications	.5	9,10
	Personal Financial Management	.5	10,11/12
	College and Career Planning 11/12	.25	11/12
	Teacher's Assistant	.25	11,12

Total Required Credits: 25.5

These graduation requirements are only minimum standards for graduation. We encourage students to exceed these standards in preparing for colleges appropriate to their academic interests, and most students do so. Students are encouraged to plan for higher education and to take an appropriate range of courses. More competitive colleges and universities expect students to take four years each of math, English, science, foreign language, and social studies.

HIGHER EDUCATION REQUIREMENTS

The Colorado Commission on Higher Education has established requirements for all students planning to enter any of the 14 Colorado, public four-year institutions. These requirements are designed to ensure success in college.

	<u>Selective Colleges</u>	<u>Highly Selective Colleges</u>
English	4	4
Mathematics (Algebra 1 and Higher)	4	4
Social Studies (to include .5 Government)	3	3-4
Science (to include Biology)	3	4
Years of same foreign language	2	3-4
Academics Electives	2	2

GRADE AND WEIGHTING POLICY

In order to more clearly communicate how we evaluate students and determine term grades, Vail Christian High School uses the following system:

<u>Percentage</u>	<u>Grade</u>	<u>GPA Value</u>
93-100	A	4.00
90-92	A-	3.67
87-89	B+	3.33
83-86	B	3.00
80-82	B-	2.67
77-79	C+	2.33
73-76	C	2.00
70-72	C-	1.67
67-69	D+	1.33
63-66	D	1.00
60-62	D-	0.67
<60	F	0.00

Note: Dual Enrollment (DE) classes through Colorado Christian University and University of Colorado and Advanced Placement classes are “weighted” for purposes of calculating GPA. (A=5, B=4, etc.) NOTE: Excessive absences could result in the loss of AP/weighted Credit.

*Students registering for AP classes are required to take the AP exam for each class in May. There is an additional \$95.00 fee for each AP exam.

COURSE SELECTION AND REGISTRATION GUIDELINES

Students will be asked to complete Course Registration Forms in early spring for the upcoming school year. The Director of College Counseling and classroom teachers will give students information about course offerings and guidance on selecting appropriate courses. Students should discuss their course selections with their parents and return the completed Course Registration Form with their parents’ endorsement as soon as possible. Scheduling conflicts or full enrollment in elective courses may necessitate changes.

Course Load

Students must register for the equivalent of a **minimum** of five credits per year (2.5 each semester). The Director of College Counseling or Assistant Head must approve any request to enroll in more than **four** AP courses. After appropriate discussion with the Director of College Counseling or Assistant Head, students may drop or add courses without penalty within the first two weeks from the beginning of the course. After the first two weeks and up until mid-semester, students may change courses only with the approval of the teacher and the Director of College Counseling or Assistant Head. Changes in placement to a more appropriate level, as in mathematics and foreign language, or changes recommended by a student’s teacher will be considered separately by the Assistant Head and classroom teacher.

COURSE OFFERINGS AND DESCRIPTIONS

As the following descriptions indicate, Vail Christian High School offers a wide array of courses in each of the major academic disciplines, as well as many others that students may elect to complement particular interests.

ENGLISH

Language Arts is the study of writing, grammar, and literature from the perspective of a Biblical worldview. Students will gain understanding of style, structure, and meaning of literature through reading and analysis of short stories, poetry, novels, and drama. VCHS graduates will be able to communicate effectively, both in writing and speaking. They will be equipped to select literature, movies, and drama for their personal enjoyment that will enhance their Christian walk throughout their lives.

Pre-AP English 1 (1.0 credit; required 9th grade)

English 1 is a gateway course for future Advanced Placement English courses. This course enhances and expands reading and writing skills, moving toward more complex texts and greater emphasis on textual analysis. Students will refine grammatical skills by honing usage of phrases and clauses in written and oral form.

Pre-AP English 2 (1.0 credit; required 10th grade)

This course continues to prepare students for AP courses in the Junior and Senior year. The reading and writing are frequent and challenging. The course requires independent thinking and analysis, as well as focused discussion and composition. The first semester of the course focuses on literature from around the world – with an emphasis on common archetypes. The second semester focuses on American classics, with an emphasis on understanding themes found in postmodern thought. Students will prepare for the grammar and writing sections of standardized college entrance exams.

Rhetoric (1.0 credit) - Junior year

This course examines the Art of Rhetoric. In order to evaluate arguments and communicate effectively, students analyze rhetorical devices and employ rhetorical tactics. The class prepares students to advance their writing, research, citation, and analytical skills. It is a developmental course to support matriculation into Sr. year AP English Literature and/or Sr. year Dual Enrollment English credit from Colorado Christian University. This course is designed to help students:

- Analyze and interpret samples of good writing.
- Identify and explain an author's use of rhetorical strategies and techniques
- Create and sustain arguments based on readings, research, and personal experience
- Produce expository, analytical, and argumentative compositions that introduce a complex thesis and develop the thesis using primary and secondary sources
- Evaluate arguments based on principles of logic
- Defend, challenge, and qualify arguments of various time periods

AP English Language/DE Composition (1.0 credit) - Junior year

This course examines the Art of Rhetoric. In order to evaluate arguments and communicate effectively, students analyze rhetorical devices and employ rhetorical tactics. The class prepares students to take the AP English Language exam in May or to qualify for Dual Enrollment credit from Colorado Christian University. This course is designed to help students:

- Analyze and interpret samples of good writing.
- Identify and explain an author's use of rhetorical strategies and techniques
- Create and sustain arguments based on readings, research and personal experience
- Produce expository, analytical and argumentative compositions that introduce a complex thesis and develop the thesis using primary and secondary sources
- Evaluate arguments based on principles of logic
- Defend, challenge and qualify arguments of various time periods

AP/DE English Literature (1.0 credit) - Senior year

This course is designed to teach literary theory and literary analysis of imaginative texts. The class prepares students to take the AP Literature and Composition exam in May or to qualify for Dual Enrollment credit from Colorado Christian University. This course is designed to help students:

- Polish skills of close reading in order to understand author's intent
- Understand terms for - and uses of - literary devices
- Write multiple essays analyzing prose, drama and poetry
- Discuss imaginative literature using collegiate diction
- Prove independent analysis using specific examples from multiple texts
- Apply several methods of literary criticism to various texts.
- Understand a work's complexity, to absorb richness of meaning, and to analyze how meaning is embodied in literary form

FOREIGN LANGUAGE

The Foreign Language Department acknowledges God's purpose in creating language as a way to communicate with both Him and humanity. Through language, God has given us the means of understanding His love so we may express that love to others (Matthew 28:19-20). The gift of language gives us understanding of different cultures, thus instilling a respect for the diversity of God's kingdom. The primary academic goal of the Foreign Language Department is to assist students in developing both oral and written proficiency in a target language enabling them to communicate through reading and writing.

Vail Christian High School Scope and Sequence for Foreign Language Learners

Spanish 1 (1.0 credit)

This course is a comprehensive introduction to the Spanish language. The primary focus and goal is to provide students with vocabulary, grammar knowledge and the ability to conjugate verbs. Music, games, movies, Spanish children's books will be used to enhance learning. Descubre 1 is the accompanying Textbook and Workbook.

Prerequisite: Passing the Spanish Entrance Exam

Spanish 2 (1.0 credit)

Spanish 2 is a review and continuation of Spanish 1 and it will advance previously learned concepts and ideas as well as introduce new ones. The primary focus and goal is to increase fluency in verbal and reading skills. Music, games, movies, newspapers, magazines will be used to enhance learning. Descubre 1 and 2 are the accompanying Textbooks and Workbooks.

Prerequisite: C or above Final Grade, C or above on Spring Comprehensive Final Exam, Determined Percentile on the NSE (National Spanish Exam).

Spanish 3 (1.0 credit)

This course is a review and continuation of Spanish 2, and will advance previously learned concepts and ideas as well as introduce new ones in preparation for AP Spanish. All of the Spanish verb tenses will be introduced, as well as other grammar structures. The primary focus and goal is to increase fluency in comprehension, verbal, reading and writing skills. More verbal and written production of language will be expected. Music, games, movies, newspapers, magazines, Spanish books, and the Spanish Bible will be used to enhance learning. Descubre 2 is the accompanying Textbook and Workbook.

Prerequisite: C or above Final Grade, C or above on Spring Comprehensive Final Exam, Determined Percentile on the NSE (National Spanish Exam).

Spanish 4 (1.0 credit)

The course develops the four skills of language learning: listening, reading, writing, and speaking. The goal for students is to gain fluency in Spanish; so many opportunities are provided to practice these four language skills necessary to gain fluency. Additionally, students will gain an understanding of the diversity and customs of Spanish-speaking countries around the world. Students will submit and present projects to develop their writing and speaking skills along with daily class assignments, homework, and tests. The goal is for students to become proficient and fluent in expressing themselves; both in written and spoken Spanish. The goal is for students to develop the skills to be bilingual and biliterate. Lastly, students will continue to develop and make connections between English and Spanish in an effort to facilitate language learning.

AP Spanish Language and Culture (1.0 credit) *This is an AP WE Service Class

The AP Spanish Language and Culture course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Spanish Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish. The AP Spanish Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g. books, music, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions). This class prepares students to take the AP English Language exam in May. Temas is the accompanying Textbook and Workbook.

MATHEMATICS

The VCHS Math Department prepares students to understand math models that will help them think critically in and out of the classroom. Within our Christian environment, the mathematics instruction cultivates an appreciation of the order of the universe and promotes the Christian values of respect and cooperation.

The math curriculum focuses on algebra and geometry, as these are the fundamental prerequisites for advanced mathematics studies. The department faculty strives to assist every student to become fluent in the language of algebra and geometry, develop confidence, and achieve a lasting understanding of fundamental math concepts.

Foundations of Algebra (1.0 credit)

This full-year course is designed for students who have completed a middle school mathematics sequence but are not yet Algebra-ready. This course reviews key algebra readiness skills from the middle grades and introduces basic Algebra I work with appropriate support. Students revisit concepts in number and operations, expressions and equations, ratio and proportion, and basic functions. By the end of the course, students are ready to begin a more formal high school Algebra I study.

Algebra 1 (1.0 credit)

Algebra 1 is designed for students who have mastered the fundamentals of arithmetic and are ready to move into more advanced topics. The content of the course includes an introduction to the study of the language of algebra, linear functions, linear systems, exponential functions, quadratic functions, radical functions, and rational functions.

Algebra 2 (1.0 credit)

Prerequisite: Successful completion of Algebra 1 or Algebra 1 Advanced.

Algebra 2 expands on the topics and concepts of Algebra 1. New topics include polynomial, exponential, and logarithmic functions. Students develop problem-solving skills and are challenged to think critically in preparation for advanced mathematical study in upper level courses. In addition to numerical, algebraic and graphical analysis using graphing calculator technology, emphasis is also placed on written expression in the form of algebraic communication that documents a logical thought process and support for a correct response.

Geometry (1.0 credit)

Prerequisite: Successful completion of Algebra 1 or enrollment in Algebra 2.

This course is a study of geometric figures in two and three dimensions. It is designed to increase a student's understanding of spatial relations. Emphasis is also placed upon applying algebra to geometric problem solving, and applying the basic terminology and concepts of geometry in a logical and organized manner including formal proofs.

Pre-Calculus (1.0 credit)

Prerequisite: Successful completion of Algebra 2 and approval from current math instructor

Pre-Calculus is designed to increase students' knowledge of mathematics beyond Algebra 2. It provides the background necessary to succeed in AP Calculus AB. This course emphasizes the fundamentals of

functions through the study of polynomial, rational, power, exponential, logarithmic, trigonometric, and circular functions. Students thoroughly explore composition, inverses, and transformations of all functions.

AP/DE Statistics (1.0 credit)

Prerequisite: Successful completion of pre-calculus and approval from current math instructor

The AP Statistics course is equivalent to an introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding. This class prepares students to take the AP Statistics exam in May or qualify for DE credit from Colorado Christian University.

AP Calculus AB (1.0 credit)

Prerequisite: Successful completion of pre-calculus and approval of current math instructor.

This is a rigorous course in a full year of work in calculus and related topics comparable to Calculus I courses in college, and prepares students for the Advanced Placement AB examination. This AP course covers concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

AP Calculus BC (1.0 credit)

Prerequisite: Successful completion of AP Calculus AB and approval of current math teacher

AP Calculus BC extends the content learned in AB to different types of equations (polar, parametric, vector-valued) and new topics (such as Euler's method, integration by parts, partial fraction decomposition, and improper integrals), and introduces the topic of sequences and series. This AP course covers topics in differential and integral calculus, including concepts and skills of limits, derivatives, definite integrals, the Fundamental Theorem of Calculus, and series. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems.

COMPUTER SCIENCE and TECHNOLOGY

Digital Media - TV Production and Film Making (1.0 credit)

This is a project-based course open to new and experienced students. Those new to the class will be introduced to basic principles of visual media, techniques and equipment used in digital storytelling in both television production and digital filmmaking. Beginning instruction is offered in story origination, script writing, camera operation, capturing audio, editing, planning, on-air performance and organizing non-fictional short subject projects, and informational and news segment production. Students who have taken the class before will move onto the next level of our digital curriculum and more challenging assignments. Work under this track will include higher level story planning, writing,

raised production levels. And deeper study of program development and marketing. Projects will include creation of promotional and documentary pieces, in depth interviews and dramatic and comedic fictional films. Students will also discuss how to create a career in media, broad casting and film making.

In this project-based course, students going to create and produce story segments, content, and programming as both individual producers and in project teams. Program segments and films will be created for public viewing on the VCHS website, The school's Vimeo gallery and on class and school social media outlets.

AP Computer Science Principles (1.0 credit)

Prerequisite: Successful completion of Algebra 1. The AP Computer Science Principles course is designed to be equivalent to a first- semester introductory college computing course. In this course, students will develop computational thinking skills vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course engages students in the creative aspects of the field by allowing them to develop computational artifacts based on their interests. Students will also develop effective communication and collaboration skills by working individually and collaboratively to solve problems, and will discuss and write about the impacts these solutions could have on their community, society, and the world. This class prepares students to take the AP Computer Science Principles exam in May.

PLTW - Cybersecurity (Elective, 1.0 credit)

Cybersecurity introduces the tools and concepts of cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy. Nationally, computational resources are vulnerable and frequently attacked; in Cybersecurity, students solve problems by understanding and closing these vulnerabilities. This course raises students' knowledge of and commitment to ethical computing behavior. It also aims to develop students' skills as consumers, friends, citizens, and employees who can effectively contribute to communities with a dependable cyber-infrastructure that moves and processes information safely.

Robotics (Elective, 0.5 credit)

Robotics is a lab-based course that uses a hands-on approach to introduce the basic concepts of robotics, focusing on the construction and programming of autonomous mobile robots. Course information will be tied to lab experiments; students will work in groups to build and test increasingly more complex mobile robots, culminating in the spring VEX Robotics competition in Denver.

We will be using VEX Robotic Design System as our platform. Students will be divided into groups based on age and ability and complete a variety of robot construction and programming activities within the confines of these groups. No programming or past robotics experience is necessary to take this course

This course can be taken in the fall, in the spring, or as a full year course. This course is primarily intended for Freshmen and Sophomores

SCIENCE

The Science Department focuses on teaching students to think critically, to practice scientific thought, and to examine God's world around them. It is this department's goal to prepare students for success in college science programs and to train them to use their knowledge to be stewards of creation.

Biology (1.0 credit; graduation requirement)

This course is devoted to the study of living things and their processes. Throughout the year this course provides an opportunity for students to develop scientific process skills, laboratory techniques, an understanding of the fundamental principles of living organisms, and higher order thinking skills through scientific case study analysis. Students will explore biological science as a process, evolution and classification, diversity of living organisms and their ecological roles, cell structure and function, genetics, and heredity.

Chemistry (1.0 credit)

Chemistry is the study of the composition, structure, properties and change of matter. The approach in this course is to start with a simple model of the atom and then evolve the model as the need for a better one arises. In each of the units, the following sequence will be utilized: examine phenomena, describe patterns observed regarding the phenomena, and build a model to help explain the phenomena. Lab activities will promote technical lab competence, utilize the scientific process of research and reporting, as well as teach and reinforce scientific concepts.

Physics (1.0 credit)

This science course utilizes the modeling process to introduce students to the principles of physics. The modeling process seeks to engage students in understanding the physical world by constructing and using scientific models to describe, to explain, and to predict physical phenomena. It will provide students with basic conceptual tools for modeling physical objects and processes, especially mathematical, graphical and diagrammatic representations. Topics to be covered include Waves, Magnetism, Electricity, Light, Optics, Kinematics, Force, Newton's Laws, Momentum and Impulse. Individual and collaborative experimentation will be a large part of this course.

AP Chemistry (1.0 credit)

Prerequisite: Must have a "B" or higher in Biology and Chemistry.

The AP Chemistry course provides students with a college-level foundation to support future advanced coursework in chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations as they explore content such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, equilibrium, acid base chemistry, and electrochemistry.

AP Physics 1 (1.0 credit)

Prerequisite: Successful completion of Geometry and Algebra II

AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through classroom study, in-class activity and hands-on, inquiry-based investigations as they explore these topics: kinematics, dynamics, circular motion and gravitation, energy, momentum, simple harmonic motion, torque and rotational motion, electric charge and DC

circuits. Prior coursework in Physics is not required - this class may be taken as a first OR second year course in Physics.

AP Environmental Science (1.0 credit)

Prerequisites: Biology and Chemistry

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Environmental Science is interdisciplinary; it embraces a wide variety of topics from different areas of study, including biology, ecology, chemistry, geology, geography, and sociology.

PLTW - Human Body Systems (DE) (1.0 credit)

Prerequisite: Must have a “B” or higher in Biology and Chemistry.

In the Human Body Systems (HBS) course, students examine the interactions of body systems as they explore identity, communication, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real world cases, and often play the role of biomedical professionals to solve medical mysteries. Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. This class prepares students to qualify for Dual Enrollment credit from University of Colorado - Colorado Springs.

Community Health and Food Sustainability (Elective, 0.5 Credit)

The goal of this course is to educate students to become food citizens who will advocate for themselves and their community to eat in a way that promotes health, encourages locally grown food consumption, and gives access to the underserved in the community. The core of this course will involve students examining current issues in human health and sustainability in the current food system, and cooking meals that expand their food vocabulary and encourage choices that benefit their bodies and the planet.

Students will learn about human nutritional requirements and how a healthy diet positively impacts health as well as elements of a poor diet that can lead to diseases such as obesity, diabetes, high blood pressure and some types of cancer. Students will learn about the importance of soil health and resilience in growing food, as well as gain exposure to industrialization in the food system and its negative impacts on human health and the environment. Students will examine ways to make the current system more sustainable, including growing urban gardens, reducing food waste, and turning to traditional wisdom in farming. As a culminating experience, students will perform a community outreach project of their choice to address one of the issues they learned about in the course.

ENGINEERING

PLTW - Introduction to Engineering Design (DE) (1.0 credit) *Prerequisite: Must have a grade of “B” or higher in grade 8 math and science.* Introduction to Engineering (IED) is an introductory course that develops student problem solving skills, with emphasis placed on the development of three-dimensional solid models. Students will learn a problem-solving design process and how it is used in industry to manufacture a product. They will work from sketching simple geometric shapes to applying engineering design computer software. Students will develop skill in technical representation and documentation of design solutions according to accepted technical standards, and they will use current 3D design and modeling software to represent and communicate solutions. The techniques learned and equipment used is state of the art and are currently being used by engineers throughout the United States. This is a project-based learning class that will prepare students for more advanced engineering design concepts and STEM careers. This class prepares students to qualify for Dual Enrollment (DE) credit from University of Colorado, Colorado Springs.

PLTW - Aerospace Engineering (DE) (1.0 credit)

PLTW propels students’ learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing an airfoil, propulsion system, and rockets. They learn basic orbital mechanics using industry-standard software. They also explore robot systems through projects such as remotely operated vehicles.

AP + PLTW College Board Recognition/Certificate

To get students ready for the global workforce, the College Board and Project Lead The Way partner to encourage student participation in STEM courses and build students' interest in STEM degrees and careers in 3 different pathways:

Biomedical Science, Computer Science, or Engineering

To earn the recognition, the student must satisfactorily complete three courses in the pathway – one AP course; one PLTW course; and a third course, either AP or PLTW – and earn a qualifying score of 3 or higher on the AP Exam(s) and a score of Proficient or higher on the PLTW End of Course (EoC) assessment(s).

AP + PLTW Certificate - Pathway Courses Menu

Level	Engineering	Biomedical Science	Computer Science
College-AP Courses	AP Biology AP Calculus AB AP Calculus BC AP Chemistry AP Computer Science Principles AP Environmental Science AP Physics 1 AP Statistics	AP Biology AP Chemistry	AP Computer Science Principles AP Computer Science A
Career - PLTW Courses	Introduction to Engineering Design Principles of Engineering	Human Body Systems	Cybersecurity

SOCIAL STUDIES

The Social Studies Department focuses on teaching students to think critically and to produce citizen-servants, dedicated to lives of Christian leadership; grounded in the fundamentals of historical scholarship.

Pre-AP World History and Geography (1.0 credit)

Pre-AP World History and Geography focuses deeply on the concepts and skills that have maximum value for high school, college, careers, and civic life. The course builds students' essential skills and confidence and helps to prepare them for a range of AP history and social science coursework during high school, including AP World History. The learning model is that of a disciplinary apprenticeship, with students using the tools of the historian and geographer as sources, data, and analytical reading and writing take center stage in the classroom. In this course, students learn that historians and geographers are investigators intent on using the tools of their disciplines to uncover new evidence about the world and its inhabitants.

AP World History: Modern (1.0 credit)

AP World History is designed to be the equivalent of a two-semester introductory college or university world history course. In AP World History: Modern, students investigate significant events, individuals, developments, and processes from 1200 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation. This class prepares students to take the AP World History exam in May.

AP U.S. History (1.0 credit)

AP United States History is designed to be the equivalent of a two-semester introductory college or university U.S. history course. In AP U.S. History students investigate significant events, individuals, developments, and processes in nine historical periods from approximately 1491 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical comparisons; and utilizing reasoning about contextualization, causation, and continuity and change over time. The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: American and national identity; migration and settlement; politics and power; work, exchange, and technology; America in the world; geography and the environment; and culture and society. This class prepares students to take the AP U.S. History exam in May.

DE American Government (0.5 credit)

DE American Government introduces students to key political ideas, institutions, policies, interactions, roles, and behaviors that characterize the political culture of the United States. The course examines politically significant concepts and themes, through which students learn to apply disciplinary reasoning, assess causes and consequences of political events, and interpret data to develop evidence-based arguments. This class prepares students to qualify for dual credit from Colorado Christian University.

FINE ARTS

The Fine Arts Department focuses on helping students discover their God-given gifts and talents (Ephesians 2:10) and to develop these so they can use this creative expression to impact the world for Christ and be a joy to their community. Emphasis is placed on self-discipline as a requirement for excellence as students learn to showcase their artistic abilities.

Visual Arts**Art of Business I/II (0.5 credit each)**

The course emphasizes design for communication through a process that includes research, analysis, conceptualization, and realization. This process leads to innovative solutions for contemporary design with digital and print media for business. You will receive an introduction to content creation, marketing, and fabrication, all of which are required to bring a business from the drawing board to life. Students will have an internship-like experience learning the creative and visual side of entrepreneurship and small business. VCHS will be used as the main test client and student cohorts will help strategize and execute successful visual communications through design, brand awareness, promotional campaigns, and other marketing initiatives. Participants will also engage in a personal projects creating original brand elements for an ongoing project of their choice. Students will rotate through roles at our in-house creative communications agency and will experience and learn the creative and technical side of each element needed to successfully present a small business in a visually effective manner, all while exploring real-world career paths and learning skills they will use in any future career or entrepreneurial pathway.

Studio Art I (Elective, 0.5 credit)

The primary goal of this 3D and 2D course is the development of an awareness and appreciation of the arts, with a focus on the Basic Elements of Art and Principles of Design. Students are introduced to the materials, techniques, concepts, and processes essential to understanding the visual arts, and the role of the artist, through a series of projects, art history exploration, class critiques, videos, slide presentations, and various kinds of method studies.

Studio Art II (Elective, 0.5 credit; prerequisite for AP Studio Art)

This course provides students with a foundation in studio art, art history, and contemporary art. Students will examine theories of art while experimenting with a variety of materials. Throughout the year, the class will explore numerous mediums including, but not limited to, drawing, painting, sculpture, assemblage, block printing, photography, collages, mixed media, and digital studio. The course encourages students to think creatively, conceptualize, and practice craftsmanship. Critiques are a vital component of the course. By balancing the study of art history, studio practice, and art criticism, students develop various approaches to art-making and gain insight into the art world. A student showcase event will take place at the conclusion of the semester.

AP Studio Art (Elective, 1.0 credit)

Prerequisite: Must have a “B” or higher in Studio Art II and teacher recommendation

The AP Program offers three studio art courses and portfolios: 2-Dimensional Design, 3-Dimensional Design, and Drawing. The AP Studio Art portfolios are designed for students who are seriously interested in the practical experience of art. Students submit portfolios for evaluation at the end of the school year. The three portfolios correspond to the most common college foundation courses. Students may choose to submit any or all of the Drawing, 2-Dimensional Design, or 3-Dimensional design portfolios. Students create a portfolio of work to demonstrate the artistic skills and ideas they have developed, refined, and applied over the course of the year to produce visual compositions.

Performing Arts

Vocal Music Ensemble (Elective, 0.5 credit)

This course is a non-audition choir that sings a wide variety of repertoire. Classical, folk, pop, and holiday music is studied throughout the year. Music theory is studied weekly, and technical vocal work daily. There is at least one major performance each semester. Performances are required in order to receive credit for this course.

Worship Arts - (Elective, 0.5 credit)

This course incorporates all aspects of performing and producing music within a professional praise and worship team including:

- 48 k Digital Sound Production
- Stage Production
- Intelligent lighting production
- CG computer graphics
- 4K Camera & Video production

- Video Switcher & Broadcast production
- Multimedia production
- Music theory instruction
- Pro level Instrument instruction: Drums, bass, keyboard, guitars, & other instruments
- Vocal & performance coaching
- Worship & Leadership coaching
- Song structure / arrangements study
- Service planning and team building
- Speaker production
- Songwriting
- Recording & Editing with Logic Pro

Theater (Elective, 0.5 credit)

This course highlights acting, singing, dancing and character development. Fall semester consists of developing acting, stage skills, singing and music reading. Spring Semester is devoted to Broadway musical production. This semester offers opportunities in set design and building, as well as the skills listed in Fall semester. Both semesters, students are highlighted in performing their strengths while encouraged to grow in all the areas of performance.

PHYSICAL EDUCATION

Performance PE (0.5 credit)

This class is geared towards athletes interested in developing and enhancing their God given athletic talent. The class will incorporate various activities to develop the student's speed, agility, strength, power, and other sport specific skills. Special emphasis will be placed on injury prevention.

**Students earn 0.25 PE credit for each sport in which they compete for an entire season*

BUSINESS STUDIES

Speech and Communication (0.5 credit) **Requirement for 9th grade students*

This course is designed as a course of participation. It looks at three modes of communication in order to learn and practice best methods for each: Speech, Interview, and Presentation. Students engage with projects for each of the modes, and learn from in-class and peer critiques, to school and community involvement.

Personal Finance Management (0.5 credit)

This course will help students develop guidelines for effectively managing their money- the one thing that every student must learn about as they prepare for college and life after matriculation. Through an analytical and practical process, students learn savings, investments, financial discipline, and goal-setting for both college and life. Essential units include credit and debt, budgeting, bargain shopping, college, costs, risk management, investing, and consumer awareness. Additionally, students will learn to utilize Excel and to understand how to read and understand paychecks and checking accounts. A Christian perspective, including being a wise steward of God's money, will be central to learning about debt, credit, and money management.

AP Macroeconomics/DE Foundations in Economics (0.5 credit)

Prerequisite: Must be concurrently enrolled in or completed Precalculus.

AP Macroeconomics is an introductory college-level course that focuses on the principles that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination. It also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts. This class prepares students to take the AP Macroeconomics exam in May, or to qualify for Dual Enrollment credit from Colorado Christian University.

OTHER ELECTIVES

College and Career Prep 11 (0.25 credit)

This course offers a dedicated time to work through and understand the many components of the college and career process in preparation for senior year. Resources and time will be provided to explore and understand aptitudes, assessments, preferences, testing and interests. Students will address critical topics related to developing success skills, exploring career options, testing, developing plans for shadows and summer activities that will provide further exposure and insights. This information will then be used to research and build college and career lists. During the final quarter, students will work through college applications, and work on college essay(s). The course sets students up to move into senior year which will solidify applications, essays, financial aid, scholarships, and post-secondary plans.

THEOLOGY

Foundations for Truth (.5 credit; required 9th grade)

This course sets the foundation for the student's career in theology at VCHS as it takes a deep dive look into The Bible and why Christians believe it is The Word(s) of God. All other theology courses at VCHS will build off this foundation. Throughout the semester we will walk through the 7-step process on how God put his thoughts and will into our hands in the form of a book. Those 7-steps are; Revelation, Inspiration, Transmission, Translation, Illumination, Interpretation and Application.

Life and Teachings of Jesus (0.5 credit; required 10th grade)

So who is Jesus? With a course theme based on love and respect, we will examine the life of Jesus through several portraits recorded in the Gospel of John, as well as, read works of C.S Lewis in "Magician's Nephew" "The Lion, the Witch and the Wardrobe". Students will closely examine the "I Am" statements of Christ in the Gospel of John and the significance of them through the lens of Old Testament prophecy.

This class examines the claims Christ made about himself.

History of Christian Thought (.5 credit; required 11th grade)

This is an overview of the theology of the Christian faith (the "what" Christians believe). As this theology has been sharpened over the years by people who have challenged it, there have been many who have defended it in order to have what the Christian Church has today as its sound, direction for faith, life and life after life. This class will walk through certain aspects of that history and

the theology of the Christian church. It will study the lives of the people that challenged that thinking and the people who defended it.

Old Testament and Judeo-Christian Ethics (.5 credit; required 12th grade)

This course will do a survey of the Old Testament books and their related history. Each student will identify each book by its title and theme. They will also discover how Biblical history corresponds to ancient near eastern history. As the student walks through each of the books we will take a few class periods and look into what the Old Testament has to say about some highly charged topics of our day; human nature, gender identity, marriage; abortion, woman's rights, sex, poverty, materialism, capital punishment, etc....

STUDENT SUCCESS CENTER

Vail Christian High School offers a Student Success Center for students who may require extra academic support during their high school years. This on-campus program is designed to support and manage individualized educational plans for students with documentation of either a Federal 504 Accommodation plan or a PSSP / ISP (Private School Service Plan/Individualized Services Plan). In addition, our center supports other enrolled students who may need assistance with executive functions such as: organizational skills, time management, study and writing skills, test-taking strategies, or extended testing time.

Listed below are the benefits of enrollment that are provided by the Resource Director in the Student Success Center:

1. Work with individual students or small groups of students to reinforce learning of materials or skills initially introduced and outlined by teaching faculty within specific disciplines.
2. Assist the certified staff in devising special strategies for reinforcing learning materials and skills based on a sympathetic understanding of individual students, their needs, interests, and abilities.
3. Attend regularly scheduled Faculty & Administrative team meetings by class (Freshmen, Sophomore, Junior, Senior). Director serves as Liaison with faculty and as an Advocate for students enrolled in the Student Success Center in order to play an integral part in meeting the academic and emotional needs of each student.
4. Monitor work, assist in correction of work/exams, and supervise curriculum-based testing or makeup work as assigned by the teaching faculty.
6. Assist teaching faculty in proctoring examinations as necessary and directed by Federal 504 accommodation plans or modification plans within the district PSSP / ISP.
5. Alert the staff to any academic, behavioral or social-emotional issues or special information about an individual student and work closely with faculty and administrative team to make necessary changes. Identify need for educational testing and make referrals.
6. When requested, serves as a resource person to the faculty.
7. Represent Vail Christian High School in any district PSSP / ISP meeting by providing information and student work as necessary.
8. Work closely with Mrs. Adina Petersmeyer, Director of College Counseling, and Assistant Head of School, Anne Verrati, to make any necessary applications for Special Testing accommodations to College Board SAT or ACT.
9. Regular communication with each student and their family (when appropriate/necessary) regarding student performance, organizational and executive function skills, spiritual/emotional mindset, and progress regarding personal student goals. Communication between Resource Director and family may take the form of phone calls, written emails or requested conferences.

Students enrolled in student Resource classes earn 0.25 credit per semester