# VALLEY CATHOLIC HIGH SCHOOL 

2023-2024 COURSE CATALOG



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## Valley Catholic High School Graduation Requirements

To graduate from Valley Catholic High School, students must earn a minimum of 24 credits, though most earn more. These 24 credits must include the following:

4 credits of English: All freshmen take English 9, and all sophomores take English 10. Juniors choose between English 11 and AP English Language and Composition. Seniors choose between English 12 and AP English Literature and Composition.
$\mathbf{4}$ credits of Religion: Freshmen take Introduction to Religious Studies. Sophomores take Salvation History. Juniors take World Religions and Catholic Social Teaching. Seniors take Relationships and Advanced Theology and Ethics.
3.5 credits of Social Science: Freshmen take Global Studies. Sophomores take American Government and Modern History. Juniors take United States History. Juniors and seniors may choose from a variety of semesterlong electives.
$\mathbf{3}$ credits of Mathematics: The Math department offers courses that range from Algebra I to Calculus II. A placement exam will be given for freshmen wishing to enter above Algebra I. Students receiving a grade lower than C- for the second semester of Algebra I must recover the credit to enter Algebra II (junior year). Students receiving a grade lower than a C - for the second semester of Algebra II must recover the credit to enter PreCalculus.
$\mathbf{3}$ credits of Science: All freshmen take Biology. Sophomores choose between regular and advanced Chemistry. Juniors choose between Physics and AP Physics I and may opt to also take AP Chemistry or AP Biology. Seniors may elect to take additional science classes, including semester-long electives and year-long AP courses.
$\mathbf{2}$ credits of the same World Language: Spanish and French are offered. Students who have completed a firstyear World Language course in $8^{\prime \prime}$ grade must pass a challenge exam to be placed in an upper-level World Language course. Students receiving a grade lower than a C- in a World Language will be required to repeat the course to enter the subsequent level.
$\mathbf{1}$ credit of Physical Education: All students must earn .5 credit by taking either PE I or PE II. Students who compete in two seasons of the same Valley Catholic-sponsored sport, or an OSAA-sanctioned sport not offered at Valley Catholic, earn . 5 PE credit. This requirement must be fulfilled before senior year.
$\mathbf{1}$ credit of Health: Students are required to take both Health I and Health II. This requirement should be fulfilled before senior year.
$\underline{\mathbf{1} \text { credit of Fine Arts: Fine Arts courses include all art, drama, and music courses. Choir, Band, and Orchestra }}$ are offered during our sheltered "zero" period.
$\mathbf{1}$ credit of Electives: Students may earn elective credit through a selection of 'pure elective' courses and through courses taken beyond any subject's minimum credit requirement.
.5 credit of Computer Science: Semester-long courses include Yearbook, Graphic Design, and Intro to Computer Science. AP Computer Science A is a year-long course.

2023-2024 Valley Catholic High School Course Planner

| Required <br> Courses and <br> Credits | Freshman | Sophomore | Junior | Senior |
| :--- | :--- | :--- | :--- | :--- |


| Required <br> Courses and <br> Credits | Freshman | Sophomore | Junior | Senior |
| :--- | :--- | :--- | :--- | :--- |

${ }^{\wedge}$ denotes a semester-long course
*Two years of the same VCHS-school sponsored or OSAA-sanctioned sport can be substituted for one semester (. 5 credit) of the PE requirement.

## Computer Science Department

Valley Catholic requires students to show competency in basic computer skills and affords the opportunity for advanced students to reach the Advanced level in Graphic Design or AP level in Computer Science Principles and Computer Science A.

## Introduction to Computer Science

## Prerequisites: None. Grades 9-10 One semester

Computer science involves problem-solving, hardware, software and algorithms that help people utilize computers to address real-world problems. This course covers an introduction to algorithms, representation of digital information, and the fundamentals of procedural and object oriented programming. The course will focus on core CS concepts using block-based languages initially and transition to a beginner's text-based programming language (Python). Students will practice and develop computational thinking practices over the span of this course: Program Design and algorithm development, code logic, code implementation, testing and debugging, and ethical computing.

## Graphic Design

## Prerequisite: None Grades 9-12 1 Semester

Graphic Design is the process and art of combining text and graphics to communicate an effective message through the design of advertisements, logos, signage, posters, etc. In this course you will learn how to use Adobe Illustrator and Photoshop from Adobe Creative Cloud to create graphics and add fonts to make compelling designs by learning the basics of both programs including tools such as; "Live Paint", "Image Trace", "Color Mixer", and many more useful tools. Your final project will be to utilize all the skills learned throughout the course to design your own business logo and apply it to the necessary business collateral pieces. The skills learned in this class will also be useful for future school/college projects and beyond into the business world. Another aspect of this class will be to learn about careers in the design world and how graphic design can be a stepping stone for a career in film, product design, fashion design, advertising or any other careers in the design world.

## Advanced Graphic Design

Prerequisite: Successful completion of Graphic Design Grades 10-12 1 Semester
This class is a continuation of Graphic Design I with students advancing their Illustrator and Photoshop skills. Emphasis will be to expand their knowledge of these software programs while completing challenging and more involved projects that are different from the first course. In this course you will also have the opportunity to incorporate other design skills you may have into class projects - skills such as photography, hand lettering, drawing, etc. This is also the opportunity to work on portfolio pieces that may be needed if you desire to study design in college and need to present samples of your work for admission.

## AP Computer Science A

Prerequisite: Algebra; Intro to Computer Science recommended Grades: 11-12, or with instructor approval Full Year

AP Computer Science A is an introductory college-level Computer Science course. Students cultivate their understanding of coding through analyzing, writing, and testing code as they explore concepts like modularity, abstraction, variables, and control structures. Students will get familiar with the concepts of object oriented programming as they learn a subset of the Java programming language. The Computer Science A Exam will test their understanding of the programming concepts covered in the course, as well as their ability to read and write Java code.

## Yearbook

## Prerequisite: None Grades 9-12 1 Semester or Full Year

Students may take yearbook as a semester or year-long course for technology credit and the fulfillment of their required service hours. They create the content and layout for The Miriam, Valley Catholic's annual. They also work together to produce an end-of-the-year newspaper. Students learn how to research a story, conduct interviews, write in AP journalistic style, take pictures using basic photography fundamentals, lay out both yearbook and newspaper spreads, and navigate social media. They also discuss journalistic integrity and the responsibility of social media. Students develop the ability and confidence to make design and journalistic choices, as well as gain proficiency in Herff Jones eDesign, Photoshop, and Google Applications. Students will experience working together as a team and seeing their work published in a variety of media.

## Electives

## Creative Writing

Prerequisite: Students must have taken AP English 11 and/or be concurrently enrolled in AP English 12 Grade 121 Semester

For those who want to express themselves through writing, this course will be a creative and instructional outlet for the imagination. Students will read different literary genres, discover and develop their style and voice, and create their own works of literature.

## Television Studies

## Prerequisite: None Grades: 11 and 121 Semester

The goal of this course is to think critically about television. The semester begins with an introduction to the industry as a whole and how a television show is created and consumed. Students will then study narrative, genre, and cultural representations on screen, as well as define what qualifies as a "success." By the end of the course, students will be able to dissect television through discussion of and in writing about how a show's production, regulation, and distribution affect the culture around us.

Speech \& Debate

## Prerequisite: None Grades 10, 11 and 121 Semester or Full Year

This course provides instruction and practice in the art of public speaking. Students train to compete in tournaments in the events of Lincoln-Douglas Debate, Policy Debate, Public Forum Debate, individually prepared speeches, and dual performances. Most of the course focuses on debates and performances with some homework comprised of reading and rehearsing. Students learn case-writing, rebuttals and cross-examination skills. Students are encouraged, but not required, to participate in tournaments.

## English Department

## English 9

## Prerequisite: None Grade 91 Year

In this course, freshmen will be introduced to an assortment of respected literature from varying eras and cultures, as well as continue to develop skills and style in order to write about these works. Their studies include the exploration of literary techniques and genres, thematic elements, textual analysis, and character development, along with grammar and vocabulary. They will read novels, short stories, plays, and poetry, and through class discussion and other exercises, the students will discover an appreciation for the many levels of literature and expression. This course will also help students develop their skills in critical and creative writing. Instruction in vocabulary, grammar, and sentence and paragraph structure will contribute to the students' ability to compose the traditional expository essay, in which they will analyze specific elements of the texts read in class.

## English 10

## Prerequisite: Sophomore Standing Grade 101 Year

This is a literature-based course with a heavy emphasis on the continued development of writing conventions, sentence structure, vocabulary, creativity, and formal writing. Analysis of culturally significant novels, poetry, short stories, and non-fiction works encourages students to develop comprehension and critical thinking skills while exploring a diverse literary heritage. In the spring, a focus is placed on preparing for the many different English sections of the PSAT and SAT examinations that upper class students will complete.

## English 11

## Prerequisite: Junior Standing Grade 111 Year

Students examine a variety of works of fiction and non-fiction representative of American Literature. Through the study of novels and short stories, as well as selections from poetry, drama, essays, speeches, and the visual arts, students improve their reading comprehension and writing skills in rhetorical and literary analysis. Listening and communication skills are enhanced through a variety of class discussion strategies. Students study grammar, vocabulary (reading-based; SAT), writing mechanics, and writing style. Writing is practiced through a variety of rhetorical modes including description, comparison/contrast, definition, and argument. Research and citation skills are honed throughout the year.

## AP English Language and Composition 11

Prerequisite: Junior standing. Students must be able to read and comprehend college-level texts and write grammatically correct, complete sentences. Current and past English teachers' approval is strongly recommended. Grade 111 Year

English Language and Composition is a college level course in which students read nonfiction texts from a variety of time periods, disciplines, and rhetorical contexts. As described by The College Board, the AP English Language and Composition course "focuses on the development and revision of evidence-based analytic and argumentative writing, the rhetorical analysis of nonfiction texts, and the decisions writers make as they compose and revise. Students evaluate, synthesize, and cite research to support their arguments. Additionally, they read and analyze rhetorical elements and their effects in nonfiction texts..." Students will cultivate an awareness of rhetoric and how language works with regard to audience, content and speaker as they study essays, memoirs, biographies, speeches, newspaper articles and columns, as well as visual text. Students will read closely primary and secondary sources, cite sources using MLA format, and synthesize others' ideas into their own arguments. All students must take the AP English Language and Composition exam in May, and this course prepares students for that exam.

## English 12

## Prerequisite: Senior Standing Grade 121 Year

This course examines the human search for meaning through literature. Students will read classic and contemporary works of literature, including poetry, plays, fiction and non-fiction works from different cultural backgrounds. We view them through a similar philosophical lens in order to come to a deeper understanding of what it means to lead a conscious existence, as well as the roles of art and language in the human experience. Students are expected to retain thematic knowledge from each unit and apply it throughout the year. This course emphasizes critical reading, engaged discussion, academic and creative writing, and vocabulary acquisition and application.

## AP English Literature and Composition 12

Prerequisite: Senior standing. Students must be able to read and comprehend college-level texts and write grammatically correct, complete sentences. Current and past English teachers' approval is strongly recommended. Grade 121 Year

Advanced Placement English Literature and Composition aligns to an introductory college-level literature and writing curriculum. As described by the College Board, this course "focuses on reading, analyzing, and writing about imaginative literature (fiction, poetry, drama) from various periods. Students engage in close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, and symbolism. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works." All students must take the AP Literature and Composition exam in May.

## English Conversation

Prerequisite: Exchange student from Shukutoku High School in Tokyo, Japan; other international students by special request. Grades 9,10, 11 and 121 Year

Exchange students practice English conversation skills through speaking, listening, writing, and reading. Daily work emphasizes pronunciation, vocabulary, grammatical accuracy, and comprehension through short oral exercises, short oral exercises, short readings, games, interviews, and diction. Students end the semester with a formal SLEP test that includes oral as well as written sections.

# Fine Arts Department 


#### Abstract

ART Art

Prerequisite: None Grades 9, 10, 11 and 121 Semester Students will be exposed to elements and principles of art and design. They will explore composition through 2D projects. Creative projects will include 2D compositions in graphite, ink, charcoal, oil pastel, water color paint, acrylic paint, and print making. Representational art projects will include still life, landscape, human forms, and animal forms.


## Art II

Prerequisite: Art I Grades 10, 11 and 121 Semester
Students will be exposed to elements and principles of design and composition of creative 2D and 3D projects. 2D projects will include greater technical skills with materials introduced in Art I. 3D projects will be composed of found objects, paper, clay, and wire. Projects in 3D will include a wide variety of sculptural creations, from book-making to glass mosaics, from architectural models to abstract 3D art.

## Advanced Art

Prerequisite: Art I and II Grades 10, 11 and 121 Semester
Students will explore materials and concepts that were introduced in Art I and II. A greater technical skill is expected. All students will hone their problem-solving abilities through artistic expression. Students will develop personal artistic style, blending careful observation with critical thinking.

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## DRAMA

## Drama

Prerequisite: None Grades 9, 10, 11, and 121 Semester (can be repeated every year)
This course is designed as an exploration of theatre and all of its elements, and is customized for both the inexperienced and experienced actor. Students write and perform original works, learn and develop improvisational skills, and perform in scenes and short plays. The material used ranges from ancient Greek theatre and Shakespeare to more contemporary works. While there is an emphasis on acting, students also have an interactive and practical chance to experience directing and design, culminating in an evening showcase for the public at the end of the term. Additionally, students have opportunities to see professional shows, work on Valley Catholic theatre productions, and meet professionals in the theatrical field. Texts for drama class are provided by the instructor. Drama class may be offered in fall and / or spring, and is designed as a semester-long course.

## MUSIC

## Band <br> Prerequisite: None Grades 9, 10, 11 and 121 Full Year

The goals of this class are to build the playing fundamentals and musical skills of all members.
Rehearsal time will be spent on music methods, theory, scales, rhythms, and learning each musician's instrument. Difficult sections of Concert Band and Pep Band music will be reviewed. The Pep Band supports the school's sports teams at home games. Opportunities are provided for public performances.

## Jazz Band

## Prerequisite: None Grades 10, 11 and 121 Semester or Full Year

This class is designed for students interested in playing and learning about the elements of jazz, rock, and popular music. Jazz Band is a performance class with an emphasis on excellence and quality through the study of jazz and rock improvisation, Big Band, and small combo techniques. Students will study jazz, rock, and popular music style concepts, interpretation techniques and creative improvisation. There will be a heavy emphasis on the development of technical skills and on individual improvement. Typical jazz band instrumentation includes alto, tenor, and baritone saxophones; trumpets; trombones; piano; guitar; bass; and drums.

## Concert Choir

## Prerequisite: None Grades 9, 10, 11 and 121 Year

The Concert Choir is a zero-period, non-audition choir for freshman, sophomores, juniors, and seniors open to anyone who enrolls. This ensemble strives to create meaningful musical experiences by performing a varied repertoire of music from different time periods, styles, cultures, and genres, with an emphasis on the standards and classics of the choral canon. Choir is a performance-based course that covers the fundamentals of music theory and music literacy, presents an overview of healthy vocal production, and develops sight-reading skills. Members will have the opportunity to sing in Varsity Singers and other small ensembles. The Concert Choir presents at least one major concert per semester, performs at Open House, and occasionally performs at additional events on- and off-campus. The Concert Choir competes in the OSAA choir competition every year, and additionally takes performance trips every other year.

## Choir/Band

## Prerequisite: Sophomore Standing, Audition/Interview Grades 10, 11 and 121 Year

Students have an opportunity to participate in both Choir and Band, beginning with Choir meeting MWF and Band TTh. This alternates each quarter. Students must meet with the music directors prior to scheduling in order to determine whether the student has the necessary proficiency and dedication to commit to two ensembles fully.

## Choir/Orchestra

Prerequisite: Sophomore Standing, Audition/Interview Grades 10, 11 and 121 Year
Students have an opportunity to participate in both Choir and Orchestra, beginning with Choir meeting MWF and Orchestra TTh. This alternates each quarter. Students must meet with the music directors prior to scheduling in order to determine whether the student has the necessary proficiency and dedication to commit to two ensembles fully.

## Orchestra

Prerequisite: None Grades 9, 10, 11 and 121 Year
Students in this course are instructed in orchestral techniques and in music fundamentals. Objectives include the spiritual, musical, aesthetic, cultural, and social growth of each individual through participation in this musical group as well as an increase in love and knowledge of music. Opportunities are provided for public performances.

## Orchestra/Band

Prerequisite: Sophomore Standing, Audition/Interview Grades 10, 11 and 121 Year
Students have an opportunity to participate in both Orchestra and Band, beginning with Orchestra meeting MWF and Band TTh. This alternates each quarter. Students must meet with the music directors prior to scheduling in order to determine whether the student has the necessary proficiency and dedication to commit to two ensembles fully.

## Orchestra/Choir

Prerequisite: Sophomore Standing, Audition/Interview Grades 10, 11 and 121 Year
Students have an opportunity to participate in both Orchestra and Choir, beginning with Orchestra meeting MWF and Choir TTh. This alternates each quarter. Students must meet with the music directors prior to scheduling in order to determine whether the student has the necessary proficiency and dedication to commit to two ensembles fully.

## AP Music Theory

Prerequisite: Ability to read music in Treble and Bass Clefs, or by instructor permission. Grades 10, 11 and 121 Year

This is an introductory music theory course that will cover materials such as scales, key signatures, transposition, chords, cadence and simple harmonic and formal analysis. This course is recommended for students planning to either major or minor in music or those who plan to seek music scholarships in college. Academic theory will be taught on Monday, Wednesday and Friday, and ear training and rhythmic exercises will be taught on Tuesday and Thursday. This is a full year course. The text required for this class is Music in Theory and Practice by Bruce Benward and Gary White, published by McGraw Hill. Supplemental materials will be provided by the instructor.

## Vocal Workshop

Grades 10-12; Prerequisites: 1 year of choir or concurrent enrollment in choir. Audition required with no previous or concurrent enrollment in choir.

Vocal Workshop is a masterclass style course in which students are individually coached in different vocal styles, technique, and genres. Students will prepare and perform solo and duet repertoire specific to their voice type and level to receive individual coaching. Units will focus on technical vocal training/anatomy, performance/audition etiquette, and solo performance of classical, musical theater, jazz, and pop genres. The course will conclude with a group performance showcase at the end of the semester.

# Health and Physical Education Department 

## HEALTH REQUIREMENTS SHOULD BE COMPLETED BY THE END OF JUNIOR YEAR.

## Health I

Prerequisite: None Grade 9, 10 or $11 \mathbf{1}$ Semester
The goal of this class is for students to develop health-promoting skills to meet the physical, mental, and social components of their lives. Students will become health literate through obtaining, interpreting and understanding basic health information. With this foundation and practice of skills, students should be able to make better day-to-day decisions as well as develop healthy lifestyle behaviors.

## Health II

## Prerequisite: None Grade 10 or 111 Semester

This class is designed to help students better understand their physical, mental, emotional, and social being. The students will learn the tools necessary to make healthful decisions involving violence, suicide and risk behaviors, including alcohol, tobacco, and other drugs. Other important topics such as stress management, human sexuality and family life, first aid and CPR, and health organizations and health careers will be covered.

## P.E. REQUIREMENTS SHOULD BE COMPLETED BY THE END OF JUNIOR YEAR.

NOTE: For students who earn .5 of the required 1.0 PE credit through sports, the other .5 credit must be earned through either PE I or PE II, not Weight Training.

## Physical Education I

## Prerequisite: None Grade All Grades 1 Semester

This course is designed to introduce students to various forms of physical activity. Through the many different activities, students will learn the importance of physical fitness and how they can fit some of their favorite activities into their own personal fitness regime. The main goal of this course is to promote physical activity and encourage a healthy lifestyle and lifelong physical fitness.

## Physical Education II

## Prerequisite: None Grade All Grades1 Semester

This course is designed to continue students' knowledge of the various forms of physical activity. Through the many different activities, students will continue to learn the importance of physical fitness and mobility in addition to increasing their understanding of foundational movement through peer coaching. The goal of this course is to promote physical activity and encourage a healthy lifestyle and lifelong physical fitness.

## Sports

## Prerequisite: None Grade 9, 10, or 112 Years (Substitutes for 1 semester of P.E.)

Students may earn one semester of PE credit (.5 of the required 1.0 credit) by participating in two years of the same sport at Valley Catholic High School in which a letter can be earned. If Valley Catholic does not offer an OSAA-sanctioned sport, students wishing to participate in that sport may do so at a public high school in their district. Club sports or non-OSAA-sanctioned sports do not apply. The grade for this option will be Pass/Fail.

## Weight Training and Conditioning

Prerequisite: Successful completion of PE I or PE II Grade 10, 11, 121 Semester
This course is designed to give students the opportunity to expand their knowledge of strength training and conditioning concepts and techniques. Students will learn the basic fundamentals of strength training, endurance training, mobility, and overall fitness and conditioning. Students will participate in a rigorous strength and conditioning program and will work toward creating their own fitness program based on their own personal goals. Students will also increase their understanding of foundational movement through peer coaching and modeling.

# Mathematics Department 

## Algebra I

## Prerequisite: Pre-Algebra 1 Year

This course includes components of the real number system; properties of exponents; solving firstdegree equations and inequalities, including verbal problems; problem solving with ratios, decimals, and percents; operations with polynomials; factoring using distributive property, difference of squares, and of trinomial forms; simplifying, adding, subtracting, multiplying, and dividing algebraic fractions; solving rational equations including verbal problems; graphing and writing linear equations; solving systems of linear equations; simplifying and combining radical expressions; solving radical equations; working with quadratic equations including completing the square, using the quadratic formula, finding the vertex and graphing the parabola; solving quadratic verbal problems and problems involving absolute value.

## Geometry

Prerequisite: Algebra I. Freshmen who want to take Geometry or Geometry A must pass Valley Catholic's Algebra Challenge Exam (usually given in April) and have permission from the Math Department Chairman. 1 Year

This course introduces the student to the idea of proof in mathematics while covering the following topics: geometric figures and their properties, congruence and similarity, introduction to trigonometry, areas and volumes, and coordinate geometry.

## Advanced Geometry $\{\mathbf{A}\}$

Prerequisite: Same as for Geometry (above). 1 Year
This course covers the same material as Geometry but in more depth and at a faster pace. It is designed for students who combine high mathematical ability with excellent motivation.

## Algebra II

Prerequisite: Geometry, and completion of Algebra I with a grade of C - or better.

## 1 Year

While reviewing much of the material of Algebra I (linear relationships, quadratic relationships, and operations with polynomials in particular), this course further explores polynomials via the Fundamental Theorem of Algebra; irrational and complex numbers; quadratic, radical, exponential, logarithmic, trigonometric, and absolute value functions; and introduces students to leveraging technology in mathematics.

## Advanced Algebra II \{A\}

## Prerequisite: Instructor approval. 1 Year

One of the primary goals of Algebra 2 is for students to conceptualize, analyze, and identify relationships among functions with emphasis on domain, range, composition, and forming inverse functions. This course builds on concepts learned in Algebra 1 and Geometry by extending the algebra of lines and coordinate geometry concepts to other functions and systems of equations. Students will develop proficiency in analyzing quadratic functions including complex numbers. Furthermore, they will cover polynomial, absolute value, radical, exponential, logarithmic, and trigonometric functions algebraically, numerically, verbally, and graphically, with and without a graphing calculator. Students will be expected to extend their algebraic skills to compute with both rational expressions and rational exponents.

## Pre-Calculus

Prerequisite: Completion of Algebra II with a grade of C- or better. 1 Year
This course builds on the concepts learned in Algebra 2 and Geometry by extending the study of functions to include sequences and series, conic sections, limits, and a more detailed study of trigonometric identities. Pre-Calculus also contains a comprehensive unit on combinations, permutations, and probability. Students will also review and cover polynomial, absolute value, radical, exponential, logarithmic, and trigonometric functions algebraically, numerically, verbally, and graphically, with and without a graphing calculator. This class is a necessary prerequisite for AP Calculus AB.

## Advanced Pre-Calculus $\{\mathbf{A}\}$

Prerequisite: Instructor approval. 1 Year
This course covers the same material as Pre-Calculus but in more depth and at a faster pace. Participation in the Math League exams is expected. This course is designed for students who combine high mathematical ability with excellent motivation.

## AP Calculus I

Prerequisite: Successful completion of Pre-Calculus. 1 Year
This course closely follows the syllabus for the College Board Advanced Placement Mathematics AB Exam. It is essentially equivalent to the first two quarters of college calculus. All students in the class will be required to take the Calculus AB exam in May.

## AP Calculus II

Prerequisite: Successful completion of AP Calculus I. 1 Year
This course closely follows the syllabus for the College Board Advanced Placement Mathematics BC Exam. This includes a review of material from the AB curriculum (AP Calculus I), plus material normally encountered in the third quarter of college calculus. All students in the class will be required to take the Calculus BC exam in May.

## AP Statistics

Prerequisite: Successful completion of or concurrent enrollment in Pre-Calculus/Advanced Pre-Calculus. Grade: 11 and 121 Year

Statistics is the mathematics of formally compiling data from samples and then applying the rules of probability to draw meaningful conclusions about the characteristics and behavior of larger populations. AP Statistics is a two-semester sequence which approaches this subject with the scope and difficulty of an introductory college course. Students will learn how to gather data correctly to create distributions and describe the characteristics for both proportions and means. A consideration of probability and randomness leads to the creation of effective models to test different hypotheses and create confidence intervals to make inferences about the population from which the sample was drawn. All AP Statistics students must take the AP exam.

## Religion Department

## Introduction to Religious Studies

## Prerequisite: None Grade 91 Year

This course will provide students with an introduction to theology from a Catholic perspective. Students will have a safe environment to study religion and explore their own religious identity. First quarter begins with a personal reflection on the nature of happiness, faith, and God. During second quarter students learn about the life of Jesus, including the Jewish and Roman world he lived in, his ministry and teachings, and his death and resurrection. During third quarter students learn about the Catholic Church, including its history, its relationship to other denominations and religions, and its teachings on morality. Fourth quarter provides an in-depth study of the sacraments of the Catholic Church. The course will provide a foundation for future religion classes at Valley Catholic.

## Salvation History

## Prerequisite: Sophomore Standing Grade 101 Year

This course introduces students to the study of the Bible as a sacred book. Students will learn and apply a contextual model of interpretation. The major theme of the first semester will be the Jewish developing understanding of covenant, and of what it means to live out a covenant relationship with God. The second semester of sophomore Religion continues in the application of a contextual model of interpretation. The focus is on the path the early Christians took in their growing understanding of Jesus as messiah and Lord, and of what it means to proclaim and live the Kingdom of God.

## World Religions

Prerequisite: Junior Standing Grade 111 Semester
This course explores religious traditions and customs throughout the world. Topics will include Hinduism, Buddhism, Islam, Judaism, and Christianity. This course may be accepted for academic credit by non-Catholic colleges and universities.

## Catholic Social Teaching

Prerequisite: Junior Standing Grade 111 Semester
This course will provide students with an understanding of Catholic social teaching, the Church's call to work for peace and social justice, following the model of the Gospels. Students will examine several ethical issues from the lens of Catholic social teaching. Issues will include, but are not limited to, economic justice, migration and immigration, dignity of human life, discrimination and racism, and environmental justice. This course may be accepted for academic credit by non-Catholic colleges and universities.

## Relationships

## Prerequisite: Senior Standing Grade 121 Semester

This course is designed to explore the application of Christian values within human relationships. Issues will be discussed on a personal and practical level. Topics can include such things as the meaning of love within a Christian context, the importance and difficulty of communication, conflicts and resolution, autonomy and interdependence.

## Advanced Theology and Ethics

## Prerequisite: Senior Standing Grade 121 Semester

This course takes a detailed and reflective look at some key theological questions. Topics can include such things as religious faith in a post-Modern world, the transcendence and immanence of God, and the problem of evil within classical and contemporary theology. This course requires a great deal of both critical and reflective thinking. This course may be accepted for academic credit by non-Catholic colleges and universities.

## Science Department

Biology

## Prerequisite: None Grades 9, 10, 11 or 121 Year

This is an introductory course in Biology, which serves as an overview of the study of life. Topics covered include cell structure and function, cellular reproduction, photosynthesis, cellular respiration, DNA and biotechnology, ecology, genetics, taxonomy, plant and animal diversity, and evolution by natural selection. Students will learn about the relationship of living things to one another and to the environment. The course includes an examination of scientific, social and ethical issues. This laboratory class has an emphasis on practical application of concepts, including experimental design, data collection and analysis, and presenting data clearly and effectively.

## AP Biology

Prerequisite: Grade of B or better in Advanced Chemistry or an A in Chemistry. Instructor approval. Grades: 11, 12. 1 Year

This course is designed for students who desire a rigorous study of biological sciences. The curriculum will closely follow the AP Biology curriculum published by the College Board. The major themes of the course are the process of evolution and how it drives the diversity and unity of life; the use of energy and molecular building blocks by organisms; the essential use of information by organisms to drive life processes; and the complex interactions within and between organisms. This course stresses experimental design, data collection and analysis, as well as the use of scientific inquiry when appropriate. Independent motivation and outside work are mandatory for success in the course and for success on the AP exam. Students who successfully complete this course should be prepared to take the AP Biology exam in May, and will be strongly encouraged to do so.

## Chemistry

Prerequisite: Must have passed Algebra I. Grades 10, 11 or 121 Year
Chemistry is an in-depth study of the behavior and changes of matter, atoms and molecules, and the relationships between science, technology, and the decisions of today's leaders and citizens. The goals of the class include preparing students for college chemistry, arousing interest in the world of matter, presenting basic theory and laboratory techniques, providing laboratory experience, and increasing scientific literacy. The course topics include the development of the major concepts of matter and the changes which matter undergoes, scientific method, atomic theory and structure, chemical bonding, chemical reactions, behavior of gases, thermodynamics, behavior of solutions, oxidation-reduction reactions/batteries, acid and bases, and organic chemistry topics. To be able to have a basic understanding of our world on a molecular level, this class will be using math to explain some of the topics. A scientific calculator is required.

## Advanced Chemistry

Prerequisite: Grade of B or better in Algebra I and/or $9^{\text {th }}$ grade math class. Teacher recommendation. Grades 10,11 or 121 Year

Advanced Chemistry provides a rigorous analytical and mathematical approach to the study of chemistry. The course is for students who have significant interest in science and intend to take it as preparation for Advanced Placement (AP) or college chemistry. The course topics include the development of the major concepts of matter and the changes which matter undergo, atomic structure, chemical bonding, chemical reactions, thermodynamics, behavior of solutions, and acid and bases. These topics are enhanced by laboratory experimentation, critical thinking, and problem-solving activities. The course includes outside reading and research, scientific writing, and problem solving. The laboratory component of the course involves students using techniques that are specific to principles of chemistry. Technology is infused throughout the curriculum. Students need to be independent, selfdirected workers. A scientific calculator is required.

## AP Chemistry

Prerequisite: Grade of B+ or better in Advanced Chemistry or an A- or better in Chemistry AND Grade of B or better in Algebra II. Teacher recommendation. Grades 11 or 121 Year

The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. This course is designed for students who desire a rigorous course in physical science. The curriculum will closely follow the Advanced Placement (AP) Chemistry curriculum published by the College Board. Students are required to take the AP Chemistry exam in May. The course has a demanding laboratory component that requires both in class and out of class time to complete all laboratory exercises. Independent motivation and outside work will be necessary for success in the course and for on the AP exam. The completion of the summer assignment is required prior to the first day of class.

## Physics

Prerequisite: Successful completion of Algebra I. Grades: 11 or $12 \mathbf{1}$ year
This is an introductory physics course. More emphasis is placed on a qualitive understanding of physics principles than a quantitative one. The expected level of mathematical sophistication extends to Algebra and simple trigonometry. There are hands-on labs, class projects, and many demonstrations to provide a more well-rounded physics experience. No AP examination is available for this level of physics.

## AP Physics I

Prerequisites: Grade of B or better in Algebra II or concurrently enrolled in Advanced Algebra II. Teacher recommendation. Grades: 11 or 121 Year

AP Physics I is the equivalent to a first-semester college course in algebra-based Physics. Students should be familiar with algebra and trigonometry. Topics covered include motion, forces, Newton's Laws, momentum, energy, and rotational motion. Classroom activities revolve around experiments, critical thinking, and problem solving. Independent motivation and outside work may be necessary for success in this course and for the AP exam. Students are expected to take the AP Physics I exam in May.

## AP Physics C

Prerequisites: Completion of Pre-Calculus and AP Physics I with a grade of B+ or better. Concurrent enrollment in AP Calculus I or a higher mathematics course. Instructor permission. Grades: 121 Year

AP Physics C covers the college sequence of Physics for students majoring in the physical sciences or engineering and involves a heavy emphasis on mathematical problem solving. The first semester integrates calculus into the mechanics topics covered in previous Physics courses while the second semester introduces electricity and magnetism. Students are expected to take both parts of the AP Physics C exam in May.

## Anatomy and Physiology

Prerequisites: Successful completion of Biology and Health I with a grade of B or better. Teacher recommendation. Grade 11, 121 Semester

This course offers students an advanced and detailed study of the structures and functions of the human body. During the semester the students will explore the body systems through a wide variety of learning methods (lectures, lab activities, individual research, and group projects). Students will make connections between anatomy/physiology and human health/well-being and explore a variety of healthrelated careers.

## Environmental Science

## Environmental Science A: Plant and Animal Ecology (Fall Semester Only)

Prerequisite: Biology and Chemistry/Advanced Chemistry. Grades 11 \& 12 Environmental Science B (may be taken independently from Environmental Science A.)

Environmental Science A focuses on energy and matter flow through living systems, with an emphasis on plants and animals. Main topics include, but are not limited to, the function of terrestrial and marine ecosystems, plant and animal structure and diversity, soil chemistry and structure, and threats to biodiversity. Students will conduct independent research projects which include scientific writing and problem solving. Students will also have the opportunity for hands-on learning as we utilize the greenhouse as well as study and enhance the health of the natural areas on our campus. There will be a required component for one out-of-school field experience involving turtle trapping and cataloging.

## Environmental Science B: Humans and the Environment (Spring Semester Only)

Prerequisite: Biology and Chemistry/Advanced Chemistry. Grades 11 \& 12 Environmental Science B (may be taken independently from Environmental Science A.)

Environmental Science B focuses on how humans impact the world around us and what we can do to sustain our need for natural resources. Main topics include, but are not limited to, biodiversity, endangered species, climate change, water and air pollution, energy, and sustainable systems. Students will conduct independent research projects which include scientific writing and problem solving. Students will also have the opportunity for hands-on learning as we utilize the greenhouse as well as study and enhance the health of the natural areas on our campus. There will be a required component for one out-of-school field experience involving turtle trapping and cataloging.

## Forensic Science

Prerequisite: Successful completion of Chemistry and Geometry. Grade: 11 and 121 Semester
This course surveys key topics in forensic science and examines case studies, current events, and depictions of forensics in pop culture. Rich in laboratory investigations, it requires students to apply many disciplines of science - chemistry, physics, and biology - to the process of solving crimes. Topics include Hair and Fiber analysis, Fingerprinting, Blood Spatter and Identification, Toxicology, and Ballistics.

## Microbiology

Prerequisites: Grades of B or better in Biology and Chemistry (advanced or regular). Grades 11-12 1 Semester

Microbiology is the scientific study of microorganisms, organisms that are too small to be seen by the naked eye. This class will explore the vast variety of microorganisms including bacteria, protists, viruses, fungi, and parasites. It will look at their structure, physiology, genetics, pathogenicity, and symbiotic relationships. It will further look at how microbes affect the environment, food production, and human health. The human immune system, antibiotic resistance, vaccination, and emerging infectious disease will also be discussed.

# Social Studies Department 

## Global Studies

## Prerequisite: None Grade 91 Year

This course will provide an introduction to world history from the beginnings of ancient civilizations until the age of Revolutions. The first semester will focus on civilizations of the ancient world, including Mesopotamia, Egypt, India, China, ancient Africa, the Americas, Greece, Rome, and the Islamic world. The second semester will focus on the making of the modern world from the Middle Ages to the eighteenth century, and will involve study of the Renaissance, Reformation, the growth of nation-states, Enlightenment, and the revolutions of the 1700s. The course is concerned with much more than politics; students will compare and contrast the science, art, religious ideas, daily life, and values of people living in different parts of the world and different time periods. In addition to learning about what happened in world history, students will also seek to understand how historians do their work and practice the skills of historical research.

## American Government/Modern History

Prerequisite: None Grade 101 Year

## American Government

This course involves a study of constitutional democracy in the United States, including questions of free speech, equal rights, interest groups, political parties, and elections. Also covered in this course are the national institutions of Congress, the Presidency, the judicial system, bureaucracy, state and local government.

## Modern History

This is a history/geography course emphasizing the most important events of the $20^{\text {th }}$ century until present time in a regional approach. It is a continuation of the ninth grade year-long Global Studies course. Attention is given to balancing political and economic developments with the growth of ideas, religions, the arts and other aspects of intellectual and social history.

## United States History

## Prerequisite: None Grade 111 Year

This course is a broad survey of US history from the Revolutionary Era to the 20th century, with a particular focus on the foundations and evolution of democracy in America. The main goal of this course is to teach students the skills that will help them become critical thinkers and civically engaged adults. Students will be asked to demonstrate the ability to ask relevant historical questions, then find, evaluate, and contextualize historical sources, information, and analysis. In order to practice these skills, some of the major topics of exploration include:

- The American Revolution and Founding Era
- The Age of Jefferson and Jackson
- The Civil War and Reconstruction
- The Gilded Age and Progressive Era
- The Great Depression, New Deal, and WWII
- The Civil Rights and Women's Rights Movements
- The Cold War, Vietnam, and Post WWII Foreign Policy
- Historical Research and Writing


## Economics and Finance

Prerequisite: None Grades 11 and 121 Semester
This course covers both Economics and Personal Finance. During the first quarter, students learn about budgeting, assets, income, credit, taxes, present and future value of money, debt, interest, insurance, and retirement.
Over the second quarter, students gain an understanding of basic economic concepts by examining historical and current examples of economic principles at work. Students study the role and workings of the market in modern capitalist economies and analyze how government controls the market in response to the will of society. The concepts of GNP, national debt, money and monetary policy, inflation, problems of growth, development, and affluence are studied as well as different economic systems, markets, supply, demand and competition.

## History of the American West

## Prerequisite: None Grades 11 and 121 Semester

This course will seek to introduce students to the unique history and identity of their region, the American West. Students will study the history of the Great Plains, Rocky Mountain, Pacific Coast, and Southwestern states from the pre-contact era until the present day. Special attention will be paid to the history of the Native nations of the West. The class will require independent research, student presentations, and essays reflecting on some of the major themes of Western history.

## Psychology

## Prerequisite: None Grades 11 and 121 Semester

This course will present a wide range of introductory psychological concepts and their applications. Such topics will include historical approaches to psychology, research methods, human development, personality, psychological testing, learning theories, and abnormal behavior. Throughout the semester, an emphasis will be placed on personal growth, self-reflection, and social awareness, as students learn how each topic relates to their own lives and those around them.

## Sociology

## Prerequisite: None Grades 11 and 121 Semester

The goal of this course is to influence the intellectual development of the students by introducing them to the discipline of sociology, the study of human relationships, their causes and consequences. Such topics as culture, socialization, ethnic and racial minorities, population and human ecology, family, crime, and poverty may be included.

## AP U.S. Government and Politics

Prerequisite: Must have received a B+ or higher in American Government and US History. Grade: 12 1 Semester

AP US Government and Politics is a one-semester course available to Seniors that will explore the complexities and nuances of the American governmental system. This course looks at not only the government (institutions) but the politics (behind the scenes deals and actions) of the United States from our local level all the way to the national level. AP US Government is a college-level course; therefore, the academic demands will be collegiate. The course will be organized around the following units of study (though not necessarily covered in this order):

- Unit 1: Foundations of American Democracy
- Unit 2: Interactions Among Branches of Government
- Unit 3: Civil Liberties and Civil Rights
- Unit 4: American Political Ideologies
- Unit 5: Political Participation

At the conclusion of the course, students are required to take the AP US Government and Politics exam. Any students who don't will risk forfeiture of credit for the course.

# World Language Department 

## French I

Prerequisite: None Grades 9, 10, 11 and 121 Year
The aim of French I is to make the student comfortable with the differences between English and French pronunciation and sentence structures while building an appreciation for the culture of the French people. Students will learn basic essential vocabulary for describing themselves and others, their homes and communities, and expressing their needs and feelings. This course will introduce them to French history, geography, cooking, shopping, holidays and films. Students will begin to speak, read, write and understand a variety of simple sentences necessary for daily life in a francophone country.

## French II

Prerequisite: Grade of C- or better in French I Grades 9, 10, 11 and $12 \mathbf{1}$ Year
The aim of French II is to reinforce and build upon the concepts learned in French I in order to increase fluency. Students will be expected to master the nuances of the two past tenses. In addition to grammar concepts and vocabulary learned from a text, the class will build vocabulary and language facility by reading a mystery story and discussing it. The goal of the class is to develop fluency, confidence and ease in speaking, reading, writing and understanding oral French. Although two years of a world language meet the high school's graduation requirement in languages, students are encouraged to continue study beyond the required levels and to pursue travel experiences abroad to increase their sense of ease and competence in French.

## French III

Prerequisite: Grade of C- or better in French II and teacher approval Grades 10, 11 and $12 \mathbf{1}$ Year
Vocabulary really expands in French III. Students are expected to try to speak French at all times. The complexity of sentence structure and verb tenses will be gradually increased so that students will begin to communicate more abstract ideas and to be more comfortable with daily speech in French. Students will learn the future tense, conditional tense, and subjunctive tense of verbs. As always, colloquial speech in survival situations will be emphasized, but the class will also study an ecology unit in French and will continue to observe French holidays, learn about geography, history, French cooking, family situations and basic needs in communication.

## French IV

Prerequisite: Grade of C- or better in French III and teacher approval Grades 11 and $12 \mathbf{1}$ Year
The French IV course is conducted entirely in French. The academic focus will be upon reading and discussing history, literature, and current events. Because building fluency in French is our goal, many items of discussion and debate such as current events, popular people, scientific issues, films, our personal lives, etc., will be discussed and debated in French as well as written about. As always, we will observe French holidays, study French history, read French magazines and discuss films that we have seen. The curriculum alternates each year. One year the class focuses upon the social history of France, the next year the emphasis is upon literary selections.

## French V

Prerequisite: Grade of C- or better in French IV and teacher approval Grade 121 Year
This course, conducted entirely in French, is a transition into the "real world" of French speech. Students will read and discuss a French novel, articles from popular magazines, and news reports about current events and will write creative stories and more formal essays as well as watch and discuss French films. We will continue to observe French holidays, do French cooking, study the evolving history of French civilization, and prepare for life in our highly interdependent "global community".

## Spanish I

Prerequisite: None Grades 9, 10, 11 and 121 Year
In this introductory course the students learn basic Spanish vocabulary to describe themselves and others and to express their needs. They learn to manipulate verbs in the present and future tenses and in the past tense, to a lesser extent. They will also learn to appreciate cultural and geographical characteristics of the Spanish speaking world.

## Spanish II

Prerequisite: Grade of C- or better in Spanish I Grades 9, 10, 11 and $12 \mathbf{1}$ Year
In this course students will work on developing increased listening comprehension skills and speaking proficiency by recombining the vocabulary and structures of Spanish one with this year's new material. Students will also continue exploring the cultures of the Spanish-speaking world with the goal of understanding and appreciating the Spanish language and cultures.

## Spanish III

Prerequisite: Grade of C- or better in Spanish II and teacher approval Grades 10, 11 and $12 \mathbf{1}$ Year
In this course students will learn to create and maintain more extensive conversations in Spanish and write about assigned topics with grammatical accuracy. The goal is for students to feel more confident communicating in Spanish during class discussions and presentations.

## Spanish IV

Prerequisite: Grade of C- or better in Spanish III and teacher approval Grades 11 and 121 Year
This course reinforces grammatical concepts learned in previous years through emphasis on reading and conversation. The students will increase fluency and cultural awareness by reading and discussing short stories and news articles. This course is taught almost exclusively in Spanish. The students will complete many self-driven projects.

## Spanish V

Prerequisite: Grade of C- or better in Spanish IV and teacher approval Grade 121 Year
This course, taught exclusively in Spanish, consolidates the language skills acquired in previous years and builds communicative skills and cultural competency. The class will read and discuss several short stories and novels. The format of the class is heavily discussion-based and encourages conversations among students and with the teacher for improving both pronunciation and fluency.

## Spanish for Heritage and Bilingual Speakers

Pre-requisites: native/near-native fluency; teacher approval and/or written \& oral exam. Grades 9-12 1 Year

This course can be taken for 2 consecutive years. It is designed for fluent speakers of Spanish who wish to advance their proficiency through reading and discussing novels and short stories. The course will focus on the development of vocabulary, grammar and spelling with an emphasis on the academic and formal registers of the language while building upon the students' linguistic backgrounds. This course is taught exclusively in Spanish.

## Special Classes

## Leadership

## Prerequisite: Election as Student Body Officer 1 Year

This course is required of and limited to the eight elected student body officers. The goals of the course include studying and practicing the philosophy, spirituality, and psychology of leading Valley Catholic's student body. The course also includes the study and practice of group processes, conflict resolution, motivation, and public relations. This is primarily a practical course wherein the students develop their skills as leaders of Valley Catholic's student council. Students are assessed on participation, projects, and assignments.

Teaching Assistant (Pass/Fail no credit earned)
Prerequisite: Instructor permission Grades 11 and 121 Semester or 2 Semesters
Students will assist instructors in the following areas: photocopying, maintaining records and files, ect.

Science Laboratory Assistant (credit earned)
Prerequisite: Instructor permission based on successful completion of two year-long science courses. Grades 11 and 121 Semester or 2 Semesters

Students will assist instructors in the following areas: photocopying; maintaining records and files; maintenance of department inventory of equipment and supplies; preparing for laboratory periods, and performing basic maintenance duties as needed to ensure a clean, safe learning environment. This course does not satisfy credit requirements for science.


[^0]:    AP Art

    Prerequisite: Students must have advanced skills and the ability to demonstrate skillful synthesis of material, processes, and ideas; Teacher approval Grades 11 and 121 Semester

    Students will make works of art and design by practicing, experimenting, and revising, and they will communicate ideas about art and design through written and visual expression. Students will create individual portfolios to submit to the College Board's Advanced Placement Art committee.

