

# CALVIN CHRISTIAN HIGH SCHOOL COURSE DESCRIPTIONS

Updated March 2012

## BIBLE COURSES

- **Bible I** (1 semester required - Freshmen) This course is a survey of the Old Testament. Stories, themes, outlines of the Old Testament books are studied in the context of redemptive history.
- **Bible II** (1 semester required - Sophomores) This course is a survey of the New Testament. Stories, themes, and outlines of the New Testament books are studied in the context of redemptive history.
- **Church History** (1 year required - Juniors) The church history course surveys church growth from Pentecost (33 A. D.) through the Reformation. The material is viewed critically from a historic Christian faith to strengthen the student in his/her faith.
- **Doctrine** (1 semester required - Seniors) This is a study of basic Christian doctrines which are derived from the Bible with an emphasis on the Reformed perspective and on relating belief to practice in daily living. It includes an in-depth study of world religions and a number of major cults.
- **Ethics** (1 semester required - Seniors) This course will examine the concepts of morality and decision making from a Biblical perspective. God's demands for moral uprightness are compared to the humanistic trends and philosophies of our modern day.
- **Apologetics** (1 semester elective – Sophomores, Juniors, or Seniors) This course is an introduction to classic apologetics. The students study worldviews, world religions, and methods of defending the truth of Christianity, all in order to grow in their faith and to be more effective witnesses for God.

## FOREIGN LANGUAGE COURSES

- **Spanish 1** (1 year required) This course provides students with the tools to learn a second language, and the foundation necessary for communication in oral and written form in Spanish. It includes several components: strategies for learning language effectively; vocabulary; grammar; cultural perspectives; and practice in exchanging and presenting information in oral and written form.
- **Spanish 2** (1 year - elective) This course builds on the foundation students have laid in Spanish 1. It reinforces the tools to needed to learn a second language, and expands students' ability to communicate in oral and written form in Spanish. Spanish 2 emphasizes grammar to a greater extent, as students learn to use both past tenses, and the subjunctive mood. It includes several components: vocabulary, new and review; grammar, new and review; cultural perspectives; practice in exchanging and presenting information in oral and written form; and review of strategies for learning language effectively.
- **Spanish 3** (1 year - elective) This course builds on the foundation students have laid in Spanish 1 and 2. It reinforces the tools to needed to learn a second language, and expands students' ability to communicate in oral and written form in Spanish. Spanish 3 emphasizes culture to a greater extent, as students learn more about the different cultures of Spanish-speaking countries. It includes several components: vocabulary, new and review; grammar, new and review; cultural perspectives; practice in exchanging and presenting information in oral and written form; and review of strategies for learning language effectively.
- **AP Spanish/Spanish 4** (1 year - elective) This course continues to build on the foundations laid in previous Spanish courses. It reinforces the tools to needed to learn a second language, and expands students' ability to communicate in oral and written form in Spanish. AP Spanish/Spanish 4 emphasizes literature and composition to a greater extent. Students listen to and read authentic material from Spanish-speaking countries. Their speaking and writing skills improve through practice and imitation of native speakers and writers. This course includes several components: vocabulary, new and review; grammar, new and review; cultural perspectives; practice in exchanging and presenting information in informal oral and written form; literature; formal composition; and formal oral presentation. The AP course will also equip students to take the Advanced Placement Examination in Spanish Language. AP Spanish is an honors course: grades of A, B, or C receive an additional honor point in the GPA.

## FINE ARTS COURSES

- **Music Appreciation** (1 semester elective) A general music course primarily designed for the music consumer, focusing on a historical approach to understand the aesthetic and technical qualities present in music throughout the historical musical periods from Genesis 3 to the present. This material is coupled with some music theory.
- **Choir** (elective) A performance-oriented course designed to help students perform and understand the various historic musical styles. There are four major evening concerts during the year. This course is open to all students. A smaller, extra-curricular group, Faith Expression, is open to students on the basis of auditions.

- **Band** (elective) A performance-oriented course focusing on the specific technical abilities of instrumental instruction, including the performing and understanding of appropriate music currently in use for high school concert band. There are four major evening concerts during the year. Pre-requisites: Previous instrumental instruction or audition.
- **Drama** (1 semester elective) This course will consist of two components:
  - a) Reading, studying, and discussing plays. Students will read representative plays from various historical periods with an emphasis on 20th Century American plays.
  - b) Studying of acting techniques, staging, and play production. The class will produce one or more one-act plays. Each student will participate either as director, actor, or production crew. Some after school or evening time may be required.
- **Art I** (1 year elective) This visual arts course contributes to the student's development in artistic perception, creative expression, historical and cultural content, aesthetic value, and connections, relationships and applications. The student is involved in creating art, in analyzing, interpreting and making judgments about art, in researching and writing about art history, and in discussing and synthesizing ideas about aesthetics. The student is engaged in activities that develop and refine the use of art vocabulary, art elements and principles of design, and choice of media. An appreciation of artworks from other cultures and times is also cultivated. The student learns about careers in and related to the visual arts.
- **Art II** (1 semester elective. Prerequisite: Art I) This visual arts course builds on the principles of designs and visual elements begun in Art I and focuses on American artists in history. Students are involved in creative expression in design, drawing, painting, printmaking, sculpture and ceramics, as well as a final individual study.
- **Art History** (1 semester elective. Prerequisite: Art I) This course is designed to introduce students to the history of art which ranges from its beginning to its most recent addition — the 21st century. While students gain knowledge of these periods, they will apply their knowledge through art assignments, group work, presentations, tests and quizzes, and reports.
- **Photography** (1 semester elective) This class is a course on learning the fundamentals of a camera and basic techniques of taking pictures, developing, and editing pictures.

## ENGLISH COURSES

- **English I: Grammar and Composition** (1 semester required - Freshmen) This course is an introduction to all the English classes at Calvin. Students will review grammar, writing skills, and literary analysis. All of the writing practice will culminate in a research paper assignment. The class also includes weekly vocabulary and spelling work, frequent journal writing, an individual book report, and a class novel.
- **English I: Basic Grammar and Composition** (1 semester - Freshmen; may be taken in place of English I: Grammar and Composition) In this course, students review and practice basic grammar, composition, and study skills they have not mastered. All of the writing practice will culminate in a research paper assignment. The class also includes vocabulary, journal writing, an individual book report, and a class novel. Pre-requisite is Junior High teacher recommendation or parent request.
- **English I: Literature** (1 semester required - Freshmen) This is a survey class that will cover most of the genres of literature, i.e., short story, novel, poetry, drama, nonfiction, epic. Additional specific assignments will be one book report and a variety of creative writing. Vocabulary is also emphasized throughout the year.
- **English II** (1 year required - Sophomores) This world literature course is a survey of all the major genres of literature (short story, novel, poetry, drama, and non-fiction). The emphasis is on literature written by non-American/English authors or literature about different cultures. Writing and speech are also important aspects of this class; the students write an in-depth autobiography as their research writing project and present numerous speeches (IE., introductory, demonstrative, informative, and persuasive).
- **English III** (1 year required - Juniors) This American literature course covers our nation's literary history from the Native Americans to the present day; this involves studying the beliefs of the literary and intellectual movements and how these movements are reflected in the literature of the day. A heavy emphasis is placed on vocabulary preparation for standardized testing and expository writing. The important skill of essay writing is taught and practiced culminating in a major research paper. There is an "American Studies" element which combines American Literature and U. S. History topics as they coincide.
- **English IV** (1 year required - Seniors) British Literature is explored historically. The course includes drama, short stories, poetry, novellas, and essays. Composition writing and vocabulary development are included.
- **AP English** (1 year elective - Seniors) AP English is a college level class on literature interpretation. Therefore, students are required to read advanced works, understand perspectives of analysis, and maturely discuss the works with the class. This includes responding in college level essays which are error free and insightful. The class will be organized in theme- and genre-based units. A history of British Literature will also be presented in a chronological fashion. The students need to be self-motivated and able to work at the college level, assuming most

of the responsibility for their learning. At the end of this class the students will be prepared to take the AP exam in English Literature and Composition. This is an honors course: grades of A, B, or C receive an additional honor point in the GPA. Prerequisites are English I - III, recommendation from a teacher, and at least a 3.0 GPA.

- **Speech** (1 semester elective) Advanced speech perfects the speech techniques originally presented in English II. This class builds the confidence of speakers at all ability levels primarily through practice. Students refine their skills by studying the art of communication, evaluating various speeches, and frequently presenting a wide range of speeches and topics. Pre-requisite is a passing grade in English II or a teacher recommendation.
- **Creative Writing** (1 semester elective) Creative Writing deals with developing skills in poetry and fiction writing while discussing and evaluating major issues in creative writing. The students are required to produce a writing portfolio. A literary magazine is published which includes a sampling of the student's work.
- **Journalism** (1 year elective) Journalism is all about written and print communication. It involves analyzing modern yearbooks, gathering facts, organizing information, learning computer skills, working on layout and presentation, advertising, photography, interviewing, cooperative work, audience analysis, as well as writing. Students in this class begin first semester by learning the terminology and skills required to produce a successful and historically accurate yearbook, and then produce the yearbook during the first through third quarters. Students will complete several design/writing projects as well as fulfill one of the many duties required to produce a yearbook. Students will also be critiquing and analyzing their peer's work and the work of the greater community. Students learn to work on group projects and to function in a larger setting.
- **Novels** (1 semester elective) In this class students read, analyze, and criticize a variety of novels that have been published in the last few centuries. Besides reading, students participate in class discussions, write reflective and analytical essays, complete projects, do research, and creatively combine things they learn throughout the semester.

## MATHEMATICS COURSES

- **Algebra 1** (1 year) An introduction to the properties and the structure of the real number system; the use of linear equations, quadratic equations, and systems of linear equations to solve problems; the algebra of a line; polynomial functions
- **Algebra 1a** (1 year) Algebra 1a covers the same material as 1<sup>st</sup> semester Algebra 1. It is an ideal option for students who have struggled in mathematics in the past or who would benefit from learning mathematics at a slower pace.
- **Algebra 1b** (1 year) Algebra 1b covers the same material as 2<sup>nd</sup> semester Algebra 1. It is a continuation of Algebra 1a.
- **Geometry** (1 year) The development of an axiomatic system through a formal study of Euclidean geometry including logic and proof, geometric constructions, calculations of areas and volume, and some coordinate geometry. In order to be prepared for this class, students should have earned a C- (1.7) or higher in Algebra 1.
- **Informal Geometry** (1 year) A study of Euclidean geometry for students who have taken or are taking Algebra 1, but who are not ready for Geometry. It prepares students for taking Geometry the next year. The class size is smaller and the pace is slower. Pre-requisite: Algebra 1, or B+ or higher in Algebra 1A
- **Algebra 2** (1 year) A quick review of Algebra 1, followed by an introduction of matrices and determinants as methods for solving systems of linear equations, an exploration of quadratic equations and the radical and complex roots that sometimes result, the conic sections, polynomial, logarithmic, and exponential functions, sequences and series, and a little probability and statistics. In order to be prepared for this class, students should have earned a C-grade or better in Algebra 1 or Algebra 1b and they need to have taken or be concurrently enrolled in Geometry.
- **Pre-calculus** (1 year) A further investigation of polynomial, exponential, and logarithmic functions, an introduction to the circular and trigonometric functions, some analytical trigonometry, polar coordinates, in-depth investigations into sequences and series, permutations and combinations, and the binomial theorem, another look at matrices and determinants and the conic sections. Students need to have earned a C or higher in Algebra 2 to be prepared for this course.
- **Advanced Mathematics - Functions, Statistics, and Trigonometry** (1 year) This course investigates functions (polynomial, rational, algebraic, exponential, transcendental) statistics, and trigonometry. This elective is a senior-level mathematics course designed to prepare students for college mathematics other than the calculus. Students who have successfully completed Algebra 2 and who are intending to attend college and major in other than mathematics, engineering, or the hard sciences should enroll in advanced mathematics.
- **AP Calculus AB** (1 year) Equivalent of one semester of college calculus, AP Calculus AB introduces differentiation and integration and many of the elementary applications of each. It is a preparation for the Advanced Placement examination offered in May. Many colleges accept successful completion of the AP exam as college credit. This is an honors course: grades of A, B, or C receive an additional honor point in the GPA. Prerequisite: Students need to have earned a C or higher in Pre-calculus to be prepared for this course.

- **Business Mathematics** (see *Business and Technology Courses*)

## SCIENCE COURSES

- **Physical Science** (1 semester elective) This course introduces some of the basic physical laws, which are foundational to further science studies. An introduction deals with the nature and limitations of science and the scientific method of discovery. A foundational unit on atomic theory is emphasized to prepare students for biology and chemistry. Students are taught to think of the behavior and properties of various kinds of matter as consequences of their atomic and molecular structures. Water and its properties are examined in detail. Other topics of study are pressure, density, buoyancy, force, work, energy, heat, and light. Emphasis is placed throughout the course on a working knowledge of the metric system.
- **Earth Science** (1 semester elective) Students are taught the basic geological formations of the earth and are led to see these as the result of on-going formational processes. Included are studies in water erosion, mountain building, volcanism, seismology, and glacial erosion. Also included in the course are astronomy, meteorology, and common mineral and rock identification.
- **Biology** (1 year required – Freshmen) This is a basic biology course, general enough to expose the students to all the major topics in biology and specific enough to prepare them for further studies in biology. The foundation of the course is a unit on cell structure and function. This leads to a generalized study of reproduction and genetics. An extensive unit on the diversity of organisms follows the five-kingdom system and culminates with a study of human structure and function. Students are involved in considerable laboratory work, particularly microscopy and dissection.
- **Chemistry** (1 year elective) This is an introductory chemistry course aimed primarily at college preparatory students. After becoming familiar with the necessary chemistry terms, notations, and procedures for writing reactions, students work with the mole concept and related calculations. A study of atomic structure and electron clouds leads to an understanding of periodicity of the elements and the principles of bonding. Students are taught to think in terms of the Kinetic Molecular Theory in order to explain phase changes, gas laws, and solutions. Reaction rate and energy relationships in a reaction are also studied. Also included are units in acid-base and oxidation-reduction reactions. An emphasis is placed throughout the course on a mathematical analysis of physical relationships.
- **Physics** (1 year elective) Physics is designed for juniors or seniors intending to enter college. The course includes all the traditional physics topics such as motion, acceleration, Newtonian mechanics, work, energy, heat, light, static and current electricity, magnetism, and electromagnetism. Most concepts are analyzed mathematically and a working knowledge of algebra and trigonometry is necessary.
- **AP Biology** (1 year elective) This course is intended for students with a strong background and interest in Biology. It includes Biology topics in much more depth and scope than in first year Biology. Students will learn to trace energy flow through a variety of biological systems and about interactions from the molecular to the ecological level. Included are a detailed study of the cell, its functions and its chemistry, and the flow of information in DNA replication and protein synthesis. There will be a study of the principles of phylogeny, the development of cladograms, and genetic changes over time. Other major topics include the chemistry of life, cells, heredity, molecular genetics, and ecology. Students will perform at least eight (8) of the labs suggested by the College Board as well as other supplementary labs. Students will engage in the Science Practices for AP Biology as defined by the College Board. Students prepare to take the AP Biology Exam. This is an honors course: grades of A, B, or C receive an additional honor point in the GPA.
- **Anatomy and Physiology** (1 semester elective. Prerequisite: Biology) This course provides a basic survey of the structure and function of the human body. All the organ systems of the body are studied. Extensive lab work is required, including organ dissections and microscope work.

## SOCIAL STUDIES COURSES

- **World History** (1 year required - Freshmen) This course involves an extensive look at the developments throughout history which have shaped the world in which we live. The objective of the course is to survey the development of God's world by looking at people and events which have had a major impact on the development of a variety of civilizations. Students will analyze, discuss and come to a greater understanding of who we are by learning about those who came before us.
- **World War II** (1 semester elective) Both non-college bound and college bound students will benefit from this course. The course will enable students to trace the course of events that led up to World War II, to describe the phases of the war, to explain why the allies were victorious and how the global war shaped the modern world. The units include: When Good Men Do Nothing (1933-1939), The Guns of War (1939-1941), The End of the Beginning (1942), Victory in Europe (1943-1944), and 1945 and the Post War World. Students will use an abundance of primary sources including films of the war, and they will study the biographies of the leading people

of the war years. They will also be encouraged to interview veterans about their experiences and to develop an appreciation for the struggles and contributions of Christians during the war.

- **Psychology** (1 semester elective - Sophomores, Juniors, or Seniors) This course explores the many aspects of psychology as a discipline. The basic workings of the mind and behavior are analyzed from a Christian point of view.
- **Sociology** (1 semester elective - Sophomores, Juniors, or Seniors) This course is a brief introduction to the scientific study of human behavior. Students will be looking at how many people act and react, what the characteristics of groups and societies are, and how these social units affect people. Consequently, students will be able to come to a better understanding of society as it relates to the Christian.
- **Humanities** (1 semester elective - Sophomores, Juniors, or Seniors) This course helps students recognize the great themes of western thought, critique those ideas from a Christian perspective and to evaluate what is a “hero,” what is the good life, and what is the good society.
- **Economics** (1 semester required - Seniors) This course covers the basic principles of economics such as scarcity, supply and demand, pricing, functional institutions and the role of government in economics. The concepts of Christian stewardship and decision-making are stressed.
- **Civil War** (1 semester elective) Students trace the important events leading up to the Civil War. They describe its battles, read biographies of the important people who played a part in the war, compare and contrast the North and South, and discover the lasting impact of the Civil War on the United States.
- **United States History** (1 year required - Juniors) Students are encouraged to understand and trace the course of American history, to read and evaluate primary as well as secondary sources and most importantly to recognize that human history flows according to the plan and purpose of God. The course is organized chronologically. There is an “American Studies” element which combines American Literature and U. S. History topics as they coincide.
- **AP United States History** (May be taken in place of U. S. History) This is an accelerated college-level U. S. history course available to students who have a minimum 3.0 GPA, teacher recommendations and parent permission. This course emphasizes historical study through the interpretation of historical documents. Students focus on important issues, essay writing and a mastery of the facts of history in preparation for the Advanced Placement tests given in May. This full year eleventh grade course meets the graduation requirement for high school students. This is an honors course: grades of A, B, or C receive an additional honor point in the GPA.
- **American Government** (1 semester required - Seniors) This course is designed to enable students to understand the history, function and challenges of the American Republic, to identify the workings of the legislative, executive and judicial branches of government as well as to recognize the essential elements of the constitution as the organizing principle of our republic. The course is designed to raise questions related to civil liberties, the structure of federalism, and decision-making in the political process. Students are encouraged to be attentive to the daily news - in short to develop a first hand experience with government which promotes active and responsible citizenship.
- **Current Issues** (1 semester elective - Sophomores, Juniors, or Seniors) This course takes a look at the issues confronting the world in which we live today. Events are studied at the local, national, and international levels. Current events are emphasized through discussion and the use of current periodicals. In doing so students will come to a better understanding of these issues, be able to discuss them openly, and be able to participate intelligently as Christians in God’s world.
- **State and Local Government** (1 semester elective) This course is designed to help students understand the structure of city, county and state government and to recognize issues and problems related to state and local government. Students are also encouraged to develop Christian strategies for influencing governmental decisions at the state and local level.
- **Media** (1 semester – required) The mass media have a profound impact on daily life in our culture today. This course focuses on how the various media function and encourages students to develop Christian discernment, to recognize the impact of the media on their world and life view and to critique the message of the media from a Biblical perspective.
- **Modern History** (1 semester elective) This course focuses on events in the United States during the Twentieth Century and includes a chronological overview of key events in western history. Events will be covered using a global perspective. Topics start with the First World War, cover each decade, move through the 60’s counter-culture, the Reagan era Conservatism, issues related to the Middle East, and up to the modern time. Students will be introduced to themes regarding social, political, ideological, theological, and cultural dimensions of the modern past. They will be encouraged to explore the relationship of their world today with events and ideas that originated in the 20<sup>th</sup> Century.

## BUSINESS AND TECHNOLOGY COURSES

- **Basic Computer Skills** (1 semester required; waived if equivalent 1-year course was taken in junior high)  
This course teaches computer skills such as using, searching and evaluating information from the Internet, Internet safety, communicating and collaborating through the Internet, computer functions and specifications, operating systems, word-processing, presentations, and spreadsheets. Christian use of technology is stressed throughout the course. See Mr. Steenstra's website for a link to the class website.
- **Computer Programming** (1 semester elective; prerequisite: Basic Computer Skills or equivalent)  
Students in this course use their creative and technical abilities to design interesting, robust and practical apps that run on Android-based phones and tablets. They also run on a computer-based emulator so there is no need for the students to own an Android-based device. For the final project (in place of the exam), students create an advanced app of their own choosing, and this app is made available to the Calvin community through the class website. In addition to gaining first-hand experience in app design, students express their faith by providing Christian service to the community using their app design skills. See Mr. Steenstra's website for a link to the class website.
- **Robotics** (1 semester elective; prerequisite: Basic Computer Skills or equivalent)  
Students in this course use the advanced LEGO® Challenge Set to create many different robots. The programs that control the robots are created using a computer running ROBOLAB® software, and then downloaded to the robots. Students compete in teams in various robotics challenges throughout the course. For the final project (in place of the final exam), students define their own advanced robot and design, build, develop, test and debug it using an engineering product development process. The final project culminates with presentations to the elementary and junior high school students at a special assembly. Math, science, and technology are applied to design problems throughout the course. This course focuses on work related competencies such as project and time management, resource allocation, information accessing, systems understanding, teamwork, and problem solving. It is a student-centered course; the teacher acts as a guide, facilitator advisor and evaluator as students work to solve problems and meet the goals defined by the teacher. See Mr. Steenstra's website for a link to the class website that includes video of past final projects.
- **Web Site Design** (1 semester elective; prerequisite: Basic Computer Skills or equivalent)  
In this course the students not only learn how to design web sites, but also take responsibility for designing and contributing to one of Calvin's websites, [www.gotcalvin.com](http://www.gotcalvin.com). The students play a large part in determining the tasks they participate in and when they will complete them. The instructor acts as a coach and guide to help them along the way, and to keep them accountable to the commitments they've made. In addition to gaining first-hand experience in web design, students express their faith by providing Christian service to the community using their website design skills.
- **Drafting** (1 year elective) This course introduces the student to the basic skills and equipment involved in technical and mechanical drawings. Twenty-five drawings covering four basic areas are required each semester and stress lettering, line construction, dimensioning, and accuracy. The second semester includes work on computers using the Design CAD 3D program.
- **Business Mathematics** (1 year) Open to juniors and seniors, a review of basic mathematical skills essential for working in business; Topics include: Banking, Payroll, Discounts, Markup and Markdown, Interest, Annuities, consumer Credit, Depreciation, Inventory, Financial Statements, Insurance, Taxes, and Stocks and Bonds. Students must have taken Algebra 1 or Algebra 1A before taking this course. This course may be used to satisfy the mathematics requirement for graduation.

## PHYSICAL EDUCATION COURSES

- **Boys' PE** (2 years required - Freshmen, Sophomores) This course combines physical fitness with the development of skills in individual and team sports. Activities include touch football, volleyball, lacrosse, track and field, soccer, softball, and basketball. Students are tested on the rules, terminology, and facts about a variety of sports.
- **Girls' PE** (2 years required - Freshmen, Sophomores) This course combines physical fitness with the development of skills and team sports. Activities include flag football, volleyball, track and field, aerobics, aerobic jump roping, soccer, basketball, self defense, and softball. The rules, techniques, and strategies of the various sports are also included.
- **Senior PE** (1 semester elective) The senior PE course covers a variety of recreational sports. Individual sports such as tennis, bowling, aerobics, badminton, golf, and archery. Also, team sports that include indoor field hockey, speed ball, ultimate frisbee, indoor soccer, and volleyball.
- **Health** (1 semester required - Sophomores) The health and safety class conveys basic information and attitudes concerning the care of the body. The course concentrates on nutrition, drug and alcohol abuse, body structure and growth, mental health, and ecology. The course discusses developing an awareness for the responsibility required to maintain balanced physical and mental health within our environment.