



High School Course Catalog 2019-2020

Welcome to the Dayspring Christian Academy High School Course Catalog. Here you will find our course offerings in the various disciplines, which represent the rich and elevated curriculum commensurate with a Principle Approach® education. Dayspring Christian Academy is committed to continue to *excel still more* in every arena of our school. Our desire is to prepare our students to be lifelong disciples of Jesus Christ who are equipped to lead in their area of calling. This year we are continuing our pilot phase of the High School Honors Program. Students in the Classes of 2021 and 2022 now have the opportunity to apply for admission into our Honors High School Program. Honors High School students in the Class of 2020 should indicate their desire to continue in the program on their new HHS application. An application is available online and in the Admissions Office.

PLEASE NOTE

Dayspring Christian Academy participates in the College Board's Advanced Placement® (AP) program. Taking an AP exam in the springtime is an opportunity by which our students may launch their college careers. Many of our students seek to accelerate their college placement by taking the exam in any of our nine AP courses: Biology, Psychology, Calculus AB, Calculus BC, Statistics, English Composition, English Literature and Composition, U.S. History, and Studio Art: 2D Design.

Additionally, Dayspring partners with Cairn University in order to offer students another opportunity to build their college transcript while completing high school. Students who take dual credit courses can earn college credits at a discount, so there is great potential for savings while further preparing themselves with college-level thinking and coursework. Cairn is fully accredited, so dual credits may be used there or transferred to other accredited colleges and universities. Dayspring dual credit courses include AP Biology, Honors Chemistry, AP Calculus AB, AP Calculus BC, AP English Literature and Composition, AP Psychology, AP U.S. History, and AP Statistics. Dual Credit and AP Courses are so designated in the heading of those courses, along with the number of credits granted. Because not all colleges accept dual credit and/or AP scores, students should check with their colleges of choice to be certain of their policies.

If you have questions about any of the courses contained in the catalog, please contact the Director of Curriculum and Instruction.

Sincerely,

Dr. Michel R. Myers
Headmaster

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BIBLE

Christology

GRADE NINE

FOUR QUARTERS; 1.0 CREDIT

The definition of *Christology* is the study of the person of Christ. *Soteriology* is the study of His work. This course seeks to develop an understanding of Christ's eternal existence as one of the persons of the triune Godhead as well as His dual nature (full deity and full humanity); His incarnation; His earthly life and ministry, including His death, resurrection, ascension; His current ministry; and His future return and reign. His preeminence in history and in the life of a believer is emphasized. Significant time is given in the use of apologetics arguments, specifically, pertaining to the reliability of Scripture and Jesus' historical reality, deity, crucifixion and resurrection.

Christian Doctrines

GRADE TEN OR ELEVEN

FOUR QUARTERS; 1.0 CREDIT

This course presents an in-depth look at the ten major doctrines found in the Holy Bible. These include: Bibliology, Paterology, Christology, Pneumatology, Anthropology, Hamartiology, Soteriology, Angelology, Ecclesiology, and Eschatology. The students consider what a worldview is through a study of the book of Ecclesiastes. Ten disciplines – theology, philosophy, ethics, biology, psychology, sociology, law, politics, economics, and history – are viewed from a secular humanist, Marxist/Leninist, Hindu, Islamic, Cosmic Humanist, and Postmodern perspectives and are compared with Biblical Christianity. Solutions to life's challenges are searched out in Scripture and the strength and power of a truly Biblical worldview is verified.

Hermeneutics

GRADE TEN OR ELEVEN

FOUR QUARTERS; 1.0 CREDIT

Students will learn disciplines of biblical hermeneutics (interpretation). Students will apply studies of surface meaning, science, geography, history, culture, literature, and language, including a word study in the original language (Hebrew or Greek), to their treatment of a chosen Bible passage, with a view to unlocking a depth of meaning and a breadth of application. Upon the studies on the passage, students will compose an essay of interpretation and application, and present it orally or online.

Worldviews Analysis

GRADE TWELVE

FOUR QUARTERS; 1.0 CREDIT

Students will further develop and demonstrate a biblical worldview and a facility for general worldview dialogue by reviewing and analyzing key documents and other media from Western history, with a focus on modern—especially visual—media, and by engaging in discussion and debate with those of differing worldviews.

CLASSICAL

Logic

GRADE TEN

FOUR QUARTERS; 0.5 CREDIT

Students study the Biblical foundation of logic and will begin the critique and construction of logical arguments. Students study and compose propositions, syllogisms, and sophisms (fallacies) from Isaac Watts' approach; another, more modern, approach to argument analysis (including the discovery of fallacies) will also be followed. The Lincoln-Douglas debate structure is presented. Students will prepare and engage in a formal debate.

Rhetoric

GRADE TEN

FOUR QUARTERS; 0.5 CREDIT

The student will develop "the art of speaking with propriety, elegance and force" (Webster's 1828). The student will follow Biblical models of composition, then practice techniques of effective delivery, with attention given to volume, enunciation, articulation rate and pause, inflection, facial expression, eye contact and gesture.

ENGLISH

American Literature

GRADE NINE

FOUR QUARTERS; 1.0 CREDIT

Students engage in the reading and study of American Literature spanning the Colonial Period through the Twentieth Century. This literature is fiction, including prose and poetry, and non-fiction, including sermons and essays. The course also includes writing (oration and literary analysis) and speaking and listening (orations and memorized poetry) supported by the formal study of grammar and vocabulary.

British Literature

[NOTE: BRITISH LITERATURE WILL RETURN TO THE COURSE CATALOG IN THE 2020-2021 SCHOOL YEAR AS A SENIOR COURSE.]

FOUR QUARTERS; DUAL CREDIT HONORS COURSE, 1.3 CREDITS

GENERAL COURSE, 1.0 CREDIT

A study of British literature, including poetry, essays, drama, and the novel from the Anglo-Saxon Period through the Victorian Era. The course also includes a grammar unit, oration, letters and three analyses of classic literature. They will launch their understanding of literary theory and criticism, both of which are essential to the study of literature. The Honors Program course includes additional studies and requirements beyond the general course. See the document: "Honors Program Requirements."

English Language and Composition

GRADE ELEVEN

FOUR QUARTERS; AP COURSE, 1.3 CREDITS [SUMMER REQUIREMENTS]

GENERAL, 1.0 CREDITS

Students will read and analyze a wide variety of literature; they will develop discernment in their appreciation of authors' ideas and the expression of those ideas. They will examine the strategies that authors use to achieve their purposes. Students will compose in a variety of modes, applying principles of logic, grammar and rhetoric as studied in the abstract and in great authors' models. Much composition will be literary analysis, and some will be creative writing, after the models they have read. There are additional requirements for the AP level course.

Literature and Composition

GRADE TWELVE

TRANSITIONING TO GRADE 10 BEGINNING 2018-2019 SCHOOL YEAR

FOUR QUARTERS; AP COURSE AND DUAL CREDIT, 1.3 CREDITS [SUMMER REQUIREMENTS]

GENERAL, 1.0 CREDITS

Literature and Composition is a lecture and discussion style class designed to mirror a college-level Introduction to Literature course. Students will read and respond, both formally and informally, to challenging literature that represents the epitome of great writing.

Readings for this class will include novels, drama, short stories and poetry by British, European and American authors from the Renaissance through the 20th century. There are additional requirements for the AP level course, which is also the tenth grade Honors Program course.

English Support Classes (ESL/International Students)

English Foundations

GRADES 9-12;

FOUR QUARTERS; 1.0 CREDIT

This is an entry-level course specifically designed for international high school students. It emphasizes the development of the foundational skills of communication, particularly speaking and writing, with the goal that students will speak and write excellently in a manner that glorifies God. The course includes instruction in English grammar, composition, reading, oral presentation, vocabulary acquisition, as well as a basic research strategies and practices. The course also contains a study of the elements of literature with a foundational analysis of one classic novel. The instructor addresses specific writing tendencies of English language learners and how to avoid common errors.

English Grammar and Composition

GRADES 10-12

FOUR QUARTERS; 1.0 CREDITS

This is a second-year course in which students further develop skills of listening, speaking, reading, writing, and critical thinking requisite for effective communication of information, ideas, and concepts in a manner that glorifies God. This ESL course includes extensive instruction and practice in English grammar, composition, vocabulary, and research strategies. Additionally, students refine their study skills of outlining, listening, note-taking, paraphrasing, and summarizing and apply these to research projects and specific Bible readings. Students also identify elements of literature and analyze one classic novel and several poems, as well as make personal application of biblical and literary themes.

Rosetta Stone American English

GRADES 9-12;

FOUR QUARTERS; 0.5 CREDIT OR 1.0 CREDIT

This is a computer-based immersive language-learning method offered by Dayspring Christian Academy to the English learner. It is designed to support the student in acquiring English as a second language through the modalities of speaking, listening, reading, and writing. Students schedule to take this 0.5- or 1.0-credit course during the school day in addition to taking English Foundations and/or English Grammar and Composition.

FINE ARTS: ART

Art I

GRADE 11

FOUR QUARTERS; 1.0 CREDIT

Students will study the rise and fall of ideas, artistic expressions, and values evidenced in the major art eras from Rome to the present. Special consideration will be given to the cause-effect relationship between art and environment, as well as worldview impact on each era and transition. Students will be directed toward art as a career, as a ministry, or as an expression of personal creativity. Students will have the opportunity to develop a portfolio for art school, if applicable. Whichever avenue students pursue, the topic of Christian excellence in art will be examined and applied. Students will gain a biblically founded, articulate view of a selected art (or related) term via a word study and artistic response. Students will create a project that reveals biblical thinking, clarity, and relevance. Art I is a prerequisite for Art II and AP Art.

Art II

GRADE 12

FOUR QUARTERS; 1.0 CREDIT (PREREQUISITE: ART I)

Students will develop their art skills through detailed instruction and practice of selected media. The impact of the Enlightenment will be examined through the shift of worldview in society as the fruit and thorns of such changes in thinking are identified. Specifically, the development of art is traced from “Luncheon on the Grass” and Impressionism through Dadaism to contemporary modern art. Historical responses, like the PRB, and their role in the art world today will be studied and discussed. Key movements will be scrutinized as case studies and various projects will serve as experiential study. After an historical backdrop to the state of the arts today has been laid, the impactful relationship between relativism and Modern and Postmodern art will be examined. Students will grapple with the appropriate response and/or integration into the contemporary art world and deduce their Christian role and response to art today.

Introduction to Art

GRADE 10

FOUR QUARTERS; 0.5 CREDIT

Students will explore the various areas of art: commercial art; fine art; craft art. They will survey the Bible and God’s mandates for the careful and artful work of craft. Students will develop their artistic skills as they work in various media. This course presents an opportunity for students to explore their creativity in art.

AP Studio Art: 2-D Design

GRADE 12 (TEACHER APPROVAL REQUIRED)

FOUR QUARTERS; AP COURSE, 1.3 CREDITS [SUMMER REQUIREMENTS]

This course for advanced art students follows the prescribed College Board Advanced Placement (AP) curriculum. The course promotes a sustained investigation of all three aspects of portfolio development— quality, concentration, and breadth. The course enables students to develop mastery (i.e., “quality”) in concept, composition, and execution of 2-D design. Students will develop a cohesive body of work investigating a strong underlying visual idea in 2-D design that grows out of a coherent plan of action or investigation (i.e., a “concentration”). The course teaches students a variety of concepts and approaches in 2-D design so that the student is able to demonstrate a range of abilities and versatility with technique. Such conceptual variety can be demonstrated through either the use of one or the use of several media. The course includes group critiques, with the teacher, enabling students to learn to analyze and discuss their own artworks as well as artworks of their peers. Students will understand artistic integrity as well as what constitutes plagiarism.

FINE ARTS: MUSIC

Choir

GRADE 9, 10, 11, 12

FOUR QUARTERS; 1.0 CREDIT

This is a non-auditioned, elective course. Students rehearse and perform music from a variety of genres including sacred, a cappella, traditional, classic choral literature, and spirituals. Students learn basic sight reading with solfege, experience singing in a foreign language, practice good vocal technique, and perform in four-part harmony with some divisi. High school choir performs at school concerts and other events including the Patriot's Celebration Dinner and Remember America Speaker Series.

Introduction to Music

GRADE 10

FOUR QUARTERS; 0.5 CREDIT

This is an elective course designed to prepare serious music students for more intensive study. It focuses on general knowledge of the musical time periods, basic music reading and writing skills, sight-reading, and ear-training.

Music I

GRADE 11

FOUR QUARTERS; 1.0 CREDIT

This elective course is designed to train serious students in music theory and history. The class focuses on basic music reading skills, harmonic analysis, sight-reading, ear-training, and an overview of musical styles and composers of the Ancient, Medieval, and Renaissance time periods. Students must be involved in a performance group at Dayspring and must learn at least rudimentary piano skills.

Music II

GRADE 11

FOUR QUARTERS; 1.0 CREDIT (PREREQUISITE: MUSIC I)

Music II is an elective course designed to further develop serious musicians and prepare them for a collegiate music program. Students will continue music theory study, conducting, sight-reading, ear-training, and an in-depth study of the form and harmonies of a composition. Students must be involved in a performance group at Dayspring and must pass a piano proficiency exam by the end of the year.

Performance Choir

GRADE 10, 11, 12

FOUR QUARTERS; 0.2 CREDITS (IN ADDITION TO THE 1.0 CREDIT FOR HIGH SCHOOL CHOIR)

This is auditioned choir designed for students with more advanced musicianship. Students in Performance Choir also participate in High School Choir. This group rehearses after school for 1 hour weekly. Students are required to log individual practice time at home. Students rehearse and perform more challenging literature with an emphasis on vocal blend, divisi and jazz harmony, diction, and a cappella singing. Performance choir performs at school concerts and other events including the Patriot's Celebration Dinner, Remember America Speaker Series, and Christmas caroling.

LANGUAGES

ASL I

GRADE 9

4 QUARTERS; 1.0 CREDIT

American Sign Language (ASL) is in the top 10 of languages used in the United States. Students will be introduced to a new culture and a language cherished by people who are Deaf and Hard of Hearing. Students will be able to hold a basic conversation in ASL as well as have a vocabulary of over 500 words. Students will be able to ask and answer questions in ASL. They will demonstrate their knowledge of Deaf culture as well as Deaf History and the people who are important to that history. Progress videos will be made of each student throughout the course. Texts used in the course include Signing Naturally Level 1 and Elaine Costello's book, Signing: How to Speak with Your Hands. The class is taught in English for the culture and history lessons and in ASL for the language teaching.

ASL LEVEL II

GRADE 10

4 QUARTERS; 1.0 CREDIT

American Sign Language (ASL 2) takes the students to the next level in the language. They will continue to learn vocabulary, grammar, and culture. Most (85%) of this class is taught in ASL, and students will be required to respond in ASL. Students will be videoed to show progress in expression. The curriculum Signing Naturally Level 2 will be utilized along with supplemental materials. By the end of the year students who work hard will be well on their way to learning a second language.

New Testament Greek

GRADE TWELVE

FOUR QUARTERS 1.0 CREDIT OFFERED

Students will learn the Greek of the New Testament (Koine, or "common" Greek), with occasional reference to Classical (Attic) and Homeric Greek. After a foundation in Greek phonetics, students will learn the three noun declensions, and all tenses, moods and voices of verbs. Students will learn the more common grammatical constructions and they will develop some familiarity with high-frequency New Testament vocabulary (those words used 42+ times in the NT). Students will translate a class-chosen chapter or more from the New Testament. They will practice reading from the New Testament, analyzing word forms, and learning exegesis as a tool to further Biblical understanding. Students will consider God's choice of Greek as the language for His New Testament.

Spanish I

GRADE NINE

FOUR QUARTERS; 1.0 CREDIT

This course develops a knowledge of introductory Spanish vocabulary and grammar and provides practice in basic conversation.

Spanish II

GRADE TEN

FOUR QUARTERS; 1.0 CREDIT

This course continues to develop a knowledge of basic Spanish vocabulary and grammar and provides practice in basic conversation.

Spanish III

GRADE ELEVEN (BY PERMISSION, ONLY)

FOUR QUARTERS; 1.0 CREDIT

INDIVIDUALIZED, SELF-PACED, DIGITAL PROGRAM (ADDITIONAL COST MAY APPLY)

This course continues to develop a knowledge of basic Spanish vocabulary and grammar and provides practice in basic conversation.

HISTORY

Economics

GRADE TWELVE

TWO QUARTERS; 0.5 CREDIT

The science of economics is studied from a position of discerning a Biblical model for scarcity, choices, private property, work, stewardship, production and the distribution of goods, services, and wealth. Monetary systems and markets as well as the government role in the economy are also examined. *Practical* economics suggests an actual use of previously learned mathematical knowledge and theories as they relate to life skills rather than mere computations on a page.

History of Christianity

GRADE TWELVE

TWO QUARTERS; 0.5 CREDIT

This course is an introduction to the 2000-year history of the Christian Church. The course will give a general overall understanding of the major people and events in the history of the Church of Jesus Christ. At the feast of Pentecost, the Christian Church was instituted with the coming of the Holy Spirit, which Peter said was a fulfillment of the prophecy of Joel. From this humble beginning with 120 disciples (Acts 1:15), the Church eventually spread to cover the whole earth, fulfilling Jesus' injunction to take the Gospel to the ends of the earth (Acts 1:8). As the history of the Church unfolds over the period of 2000 years, students will see that the Church is both a human and a divine institution. It is human in the sense that it is peopled in leadership and membership by human beings, human beings who share the same characteristics of both greatness and evil. It is divine in the sense that its head is the Incarnate Son of God, Jesus Christ, and its divine authority is the Holy Scriptures, God's written revelation to mankind. This historical journey will therefore be a history of both the human and the divine; a history mixed with God's direct intervention and with the intrigue and greatness of human history. It is a history, which reflects us, the People of God, who move through time and space. It is our history.

Rudiments of American History

GRADE NINE

FOUR QUARTERS; 1.0 CREDIT

A rudiment, according to Webster's 1828, is a first principle or element; that which is to be first learned. The "Rudiments Course" is a study of history from the providential view, seeking to discern the internal, causative nature of events, thereby to identify God's Hand in history. The course follows the development of liberty and law, looking at the main documents of liberty and their historical settings as well as examining the impact of both Christian and pagan character in the founding of this nation. As students learn to think governmentally, they will see the purpose and plan of God for America as a nation and for themselves as American Christians. Students will develop an awareness of the role they have to play in the restoration of America to its Biblical foundation and Gospel purpose.

U.S. History

GRADE ELEVEN

FOUR QUARTERS; AP COURSE AND DUAL CREDIT, 1.3 CREDITS [SUMMER REQUIREMENTS]
GENERAL, 1.0 CREDIT

Beginning with Columbus' discovery to the present this course is a study of the first Christian Constitutional Republic. The study will trace the growth, development, and deterioration of the American Republic. Emphasis will be placed on the westward expansion, the slavery issue, the Civil War, the growth of capitalistic business, immigration, progressivism, the ascendancy to a world power, the World Wars, the infiltration of socialism and the welfare state, the Cold War, and the decline of the influence of Christianity. In addition to the American Presidents, emphasis will be given to key political, religious, business, and cultural figures in American history. There are additional requirements for the AP level course.

World History

GRADE TEN

FOUR QUARTERS; HONORS COURSE, 1.3 CREDITS
GENERAL COURSE, 1.0 CREDIT

This course highlights the beginnings of human civilization from tribal communities to the consolidation of empires to the advent of nation-states. The impact of a society's understanding of God on the view of the individual, government, education, work, and commerce is traced. Students will think governmentally in order to understand current events and issues today's world, deducing historical and worldview causes as they seek Biblical answers to the complex problems that modern societies face. The Honors Program course includes additional studies and requirements beyond the general course. See the document: "Honors Program Requirements."

MATHEMATICS

Algebra I

ALL GRADES

FOUR QUARTERS; 1.0 CREDIT

In this course in the methodology of Algebra I, teaching methodologies will vary but will center around three-pronged hybrid instruction that includes small group teacher interaction, project and problem collaboration, and independent computer-based practice. Here students solve algebra problems including the following: equations and inequalities containing variables, powers, and exponents; absolute value; proportions and percents; scientific notation; linear functions; polynomials; and quadratic functions and equations. Students also determine how the study of algebra reveals God through the biblical principles of constancy, Christian character, problem-solving, representation, and the Dominion Mandate. This course is intended to prepare the student for Algebra II.

Algebra II

ALL GRADES

FOUR QUARTERS; 1.0 CREDIT

In this continuing course in the methodology of Algebra, students learn to work extensively with functions, including linear, quadratic, polynomial, trigonometry, logarithmic, and exponential functions. They work with real, imaginary, rational and irrational numbers. In working with various types functions, students will create models for the real world and solve inequalities in the context of application problems. In conjunction with linear functions, students are also introduced to matrix operations. They work with concepts and applications in probability, sequences, and series, in addition to an introduction to trigonometry. In this course students will use a graphing calculator.

Geometry

ALL GRADES

FOUR QUARTERS; 1.0 CREDIT

Students will study the features and properties of the various subsets of lines, planes, and space, prove congruency theorems using deductive reasoning, use simple tools to construct various plane figures, and apply theorems and elementary trigonometry principles to problems and real-life scenarios.

Pre-Algebra

ALL GRADES

FOUR QUARTERS; 1.0 CREDIT

The Holt Course 3 curriculum is both a pre-algebra course and an upper level arithmetic skills course that is designed to prepare students for success with the more abstract concepts of Algebra I, while creating automaticity in the use of upper level arithmetic. This course, as is true of all mathematics courses, is the science of quantity, which treats of magnitude (size, shape and number), anything that can be measured.

Pre-Calculus

ALL GRADES

FOUR QUARTERS; 1.0 CREDIT

Students will review the Cartesian coordinate system, analyze functions and operations, apply functions to real-life models, study trigonometry, analyze conic sections, preview matrices and probability, and examine differential and integral calculus.

Calculus AB (AP)

ALL GRADES

FOUR QUARTERS; AP COURSE; DUAL CREDIT, 1.3 CREDITS

Students will calculate function limits, derivatives, and integrals, and utilize these tools in real-life applications.

Calculus BC (AP)

ALL GRADES

FOUR QUARTERS; AP COURSE, DUAL CREDIT, 1.3 CREDITS

This course provides a review of Calculus AB, including limits, derivatives, integrals and antiderivatives, and function analysis. From there, the course continues with a coverage of surface area and volume of solids of revolution, slope fields, infinite series (including power series and Taylor series), convergence and divergence, and parametric, vector and polar functions. The course also covers conic sections in greater detail and ends with a study of hyperbolic functions.

Statistics (AP)

GRADE ELEVEN OR TWELVE

FOUR QUARTERS; AP COURSE; DUAL CREDIT, 1.3 CREDITS

Students will explore and understand data, examine the relationships between variables, learn about gathering data, explore randomness and probability, relate statistics to the real world, and work with inference. Statistics, n. “a collection of facts respecting the state of society, the condition of a people in a nation or country, their health, longevity, domestic economy, arts, property and political strength, the state of the country” (Webster). Statistics: a way of reasoning, a collection of tools & methods, particular calculations to help us understand the world. The real, imperfect world. It is about variation. *Statistics is the art of distilling meaning from data* (Boch).

PHYSICAL EDUCATION

High School Physical Education

GRADE NINE

FOUR QUARTERS; 1.0 CREDIT

Students will learn concepts of individual physical fitness through individual and group physical activities, with an emphasis on the importance of maintaining an active lifestyle in order to be good stewards of their health. Team concepts and good sportsmanship will be highlighted in game units that are interspersed throughout the year.

SCIENCE

Anatomy and Physiology

GRADE ELEVEN OR TWELVE
FOUR QUARTERS; 1.0 CREDIT

This course will examine and study the structural and functional arrangements of the various components of the human body. The structural study will include the identification and examination of the physical design and arrangement of the various systems and organs comprising the human body and how they work together in unity. The functional study will examine and explore the chemical and cellular processes that coordinate within the body as a whole and are necessary for maintaining proper performance of all body functions. In addition, the course will look at common pathologies and proper care of the various systems and the body as a whole.

Biology

GRADE NINE
FOUR QUARTERS; 1.0 CREDIT

Biology is the study of living organisms existing in the natural realm. Since the creation of Adam, man has been involved in the naming, dominion, and care of God's plants and animals. The creatures of the earth were designed as a benefit to man and are therefore worthy of observation and study. Because of man's fall, students will also study life and its processes in order to survive the resultant diseases, infestations and harmful organisms. Since God is the creator of all things, He is the one most qualified to set guidelines for understanding and interpreting His creation. This course is designed to introduce foundational concepts of biology while instilling an appreciation for the power of God, which is displayed through the creatures He has made. Throughout the course, students will be exposed to secular views regarding life's origin and development as well as the biblical and scientific problems with these views. Mastery of the vocabulary of Biology will be stressed. Biology as a career, bioethics and basic ecology will be explored.

Biology (AP)

GRADE ELEVEN OR TWELVE
FOUR QUARTERS; AP COURSE; DUAL CREDIT, 1.3 CREDITS [SUMMER REQUIREMENTS]

This course for advanced students follows the prescribed College Board Advanced Placement (AP) curriculum. AP Biology is designed to offer students a solid foundation in introductory college-level biology. By structuring the course around the four big ideas, enduring understandings, and science practices, students develop an appreciation for the study of life, which helps them to identify and understand unifying principles within a diversified biological world. The process of inquiry in science and developing critical thinking skills is the most important part of this course.

Chemistry

GRADE TEN

FOUR QUARTERS; 1.0 CREDIT

The foundation of science will be explored through a study of Genesis chapters 1 through 3. Chemistry may be defined as the science that investigates the composition of all material substances, and the changes of constitution that their mutual actions and inter-actions produce. Mastery of the vocabulary of chemistry will be stressed. The students will make practical application of chemical principles to many areas of life.

Chemistry (Honors)

GRADE TEN

FOUR QUARTERS; HONORS COURSE, DUAL CREDIT, 1.3 CREDITS

The foundation of science will be explored through a study of Genesis chapters 1 through 3. Chemistry may be defined as the science that investigates the composition of all material substances, and the changes of constitution that their mutual actions and inter-actions produce. Mastery of the vocabulary of chemistry will be stressed. The students will make practical application of chemical principles to many areas of life and living. Honors Program courses includes additional studies and requirements beyond the general course. See the document: "Honors Program Requirements." (Note: Students who apply for dual credit through Cairn University will earn 4 credits.)

Physics (Honors)

GRADE ELEVEN OR TWELVE (PREREQUISITE: ALGEBRA 2)

FOUR QUARTERS; 1.3 CREDITS

Students will identify and apply the relationships among force, mass, velocity and acceleration, use a hands-on approach during regular lab time to experiment with and observe learned concepts, identify properties of fluids and electromagnetic radiation, construct basic electrical circuits, and participate in several projects.

STEAM: Advanced Design Application

GRADE TWELVE

FOUR QUARTERS; 1.0 CREDIT

This course focuses on the application of STEAM (Science, Technology, Engineering, Arts, and Mathematics) with the goal of developing technological literacy. It will focus on three key areas of technology: transportation, manufacturing, and submarine technology. Teaching methodologies will center around practical, logical problem-solving skills used in the engineering design process as students apply STEAM skills to solving challenges related to real-world applications. Much of the class time will be spent doing hands-on projects in a small group setting. Students will also be made aware of STEM- and STEAM-related career opportunities.

EXTRA-DEPARTMENTAL SUBJECTS

Accounting

GRADE ELEVEN OR TWELVE [SELF-PACED STUDY, TEACHER MONITORING]

FOUR QUARTERS; 1.0 CREDIT

Students will explore, understand the process, and apply the rules and discipline of the accounting profession. Students will complete the accounting cycle for several types of enterprises.

Apprenticeship

GRADE 11

FOUR QUARTERS; 1.0 CREDIT

This course is designed to prepare students for a successful transition to college and/or a career path after high school. The students will focus on spiritual, academic, personality and leadership strengths as well as career possibilities. Students will use this information to help them design a path of further study or training. SAT preparation and an understanding of the college application and acceptance process are included in this course. Students will prepare a personalized college and career portfolio.

Computer Science

GRADE NINE, TEN, ELEVEN, OR TWELVE

FOUR QUARTERS; 1.0 CREDIT

Students will explore the field of computer science, learning the role of the basic components of a computer and how to develop software to control the behavior of the computer. Learn the basic components of a piece of software, correct practices in software development.

Computer Science Principles (Honors)

GRADE 12

4 QUARTERS; 1.3 CREDITS; PASS/FAIL

INDEPENDENT 36-WEEK DIGITAL PROGRAM (FINAL PROJECT REQUIRED)

This course introduces the student to the efficient, algorithmic processes of computer science and the art of programming. Topics are sequential and include abstraction, algorithms, data structures, resource management, security, software engineering, and web development. The course leads students to address real world problems in the areas of biology, cryptography, finance, forensics, and more. Languages include C, PHP, and JavaScript. The course itself concludes on April 30, 2020. Computer Science Principles is considered preparatory for the AP CS Principles exam and is taught primarily by Dr. David Malan, a Harvard University professor of the Practice of Computer Science at the School of Engineering and Applied Sciences. For a fee, students who earn a satisfactory score (70% or higher) on each of the course's assigned problems are also eligible to receive a verified certificate from HarvardX.

Psychology (AP)

GRADE TWELVE

FOUR QUARTERS; AP COURSE, DUAL CREDIT, 1.3 CREDITS

Course material emphasizes how scientific studies have advanced the understanding of human growth and behavior. At the same time, students learn that while solid studies have provided insights, these studies have also led to questions and theories that conflict in their conclusions. Students are challenged to evaluate the insights gained through proper scientific inquiries described in the text and lecture presentations in light of their biblical worldview. Critical thinking rather than blind acceptance is expected. Whatever field the student ultimately enters, this ability to use ethical, scientific thinking will be an asset.