



*Cultivating strong minds and a passionate
faith*

High School Program & Course Description Guide

2018 - 2019

Mount Airy Christian Academy

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Mount Airy Christian Academy High School

Diploma Programs

Mount Airy Christian Academy desires for every high school student to develop to their fullest potential academically. We encourage students to look beyond the minimum requirements for graduation and prepare for college or advanced education. One way we do this is to offer three diploma programs: General, College Preparatory, and Advanced College Preparatory.

MACA Diploma Programs

General Diploma

To receive the General Diploma:

- minimum of 26 total credits including Algebra I, Geometry, and Biology
- minimum 80 Service Learning hours
- complete a week-long internship in the junior and senior years
- minimum of 2.0 GPA

College Preparatory Diploma

To receive the College Preparatory Diploma:

- minimum of 27 credits including Geometry, Algebra II, and Biology
- minimum 100 Service Learning hours
- complete a week-long internship in the junior and senior years
- minimum of 2.75 GPA

Advanced College Preparatory Diploma

To receive the Advanced College Preparatory Diploma:

- minimum of 28 credits including Pre-Calculus and Biology
- minimum 120 Service Learning hours
- complete a week-long internship in the junior and senior years
- minimum of 3.50 GPA

Cumulative Diploma Honors – Recognized at Graduation

cum laude = 3.5 GPA*

magna cum laude = 3.7 GPA*

summa cum laude = 3.9 GPA*

*Based on a weighted grading scale, not rounded (ex: 85-88 = B; 89-91 = B+; 92-94 = A-; 95-100 = A)

MACA GENERAL DIPLOMA – REQUIREMENTS FOR GRADUATION

<u>COURSES</u>	<u>CREDITS</u>	<u>REQUIRED COURSES</u>
Bible	4	(Hermeneutics & Christology)
English	4	
Social Studies	3	(World History, US History, American Government)
Math	4	(Algebra I, Geometry) 1 credit each year
Science	3	(Biology + two other lab sciences)
Foreign Language	2	
Physical Education	1	(Also achievable through MACA sports)
Health	½	
Technology Education	1	(Computer Science I)
Fine Arts	1	
Communication	½	
Electives	2	(Can be additional core courses)

TOTAL

Minimum of 26 credits required for graduation

Students must earn a minimum of 26 credits, participate in the MACA internship in their junior and senior years, earn a minimum of 80 Service Learning hours, graduate with at least a 2.0 overall GPA and successfully complete their Senior Bible Thesis Presentation to be awarded a General Diploma. These requirements meet or exceed the standards established by the Maryland State Department of Education.

At MACA, credits are earned by semester - meaning ½ credit is earned at the end of semester 1 for a passing grade and ½ credit is earned for a passing grade at the end of semester 2 - for a total of 1 credit. This means if a student fails a semester of a 1 credit course but passes the course over all (yearly grade average of at least 66) they will earn ½ of a needed credit from that school year. The student must then either retake that portion of the class or they must earn the other ½ credit in another class in same subject area. (For example, if a student fails one semester of World History, they can retake the failed semester or take another history course for at least ½ credit.)

COURSE PREREQUISITES

Course Prerequisites

Some of the courses within the curriculum require that students successfully complete the preceding course with at least a "C" average. This is to assure success in the next level of learning. Therefore, to enter the next level course, a student must have a "C" final average grade or receive approval from the advanced course teacher.

<u>Advanced Course</u>	<u>Prerequisite Course(s)</u>
Computer II	Computer I
Web Design and Development	Computer I and Teacher Approval
IT Assistant	Computer I and Teacher Approval
Spanish IV	Spanish III
Spanish III	Spanish II
Spanish II	Spanish I
Algebra I	Pre-Algebra
Geometry, Algebra II	Algebra I
Pre-Calculus	Algebra II
AP Calculus	Pre-Calculus
Biology	Algebra 1 or Current enrollment in Algebra 1 (with teacher approval)
Chemistry	Biology, Algebra 1
Physics - H	Algebra I & II; enrolled in Pre-Calculus and/or teacher approval (85 or higher)
Anatomy & Physiology - H	Biology (85 or higher)

RECOMMENDED COURSE OF STUDY

<p><u>Ninth Grade</u></p> <ul style="list-style-type: none"> ● Old Testament Survey ● Classic Lit, Grammar & Composition ● Introduction to Algebra I/Algebra I/Geometry ● World History ● Computer I/Spanish I ● Earth and Space Science, or Biology* (with teacher recommendation) ● Elective 	<p><u>Sample On Level 9</u></p> <ul style="list-style-type: none"> ● OT Survey ● Class Lit, Gram & Comp ● Algebra I ● World History ● Computer I ● Earth and Space Science ● Study Hall (Fall)/Health (Spring) 	<p><u>Sample Honors 9</u></p> <ul style="list-style-type: none"> ● OT Survey ● Lit. Genres and Comp ● Geometry ● World History ● Computer I ● Earth and Space Science or Biology ● Study Hall (Fall)/Health (Spring)
<p><u>Tenth Grade</u></p> <ul style="list-style-type: none"> ● New Testament Survey ● Literary Genres & Composition ● US History ● Algebra I/Geometry/Algebra II ● Biology/Chemistry ● Spanish I/II or Computer I/II ● Elective 	<p><u>Sample On Level 10</u></p> <ul style="list-style-type: none"> ● NT Survey ● Lit. Genres & Comp. ● US History ● Geometry ● Biology ● Spanish I ● Fine Art 	<p><u>Sample Honors 10</u></p> <ul style="list-style-type: none"> ● NT Survey ● Amer. Lit. & Comp. (H) ● US History ● Algebra II ● Biology or Chemistry ● Spanish I ● Fine Art
<p><u>Eleventh Grade</u></p> <ul style="list-style-type: none"> ● Comparative Religions ● American Lit & Composition ● American Government ● Geometry/Algebra II/Pre-Calculus/Pre-Calc ● Chemistry/Anatomy & Physiology (H) ● Computer I/II or Spanish I/II/ ● Elective 	<p><u>Sample On Level 11</u></p> <ul style="list-style-type: none"> ● Comparative Religions ● Amer. Lit. & Comp. ● American Gov't ● Algebra II ● Chemistry ● Spanish II ● SAT Prep 	<p><u>Sample Honors 11</u></p> <ul style="list-style-type: none"> ● Comparative Religions ● Brit. Lit. & Comp. (H) ● American Gov't ● Pre-Calc. (H) ● Physics (H) ● Spanish II ● SAT Prep
<p><u>Twelfth Grade</u></p> <ul style="list-style-type: none"> ● Hermeneutics & Christology ● British Lit & Composition ● Algebra II /Pre-Calculus/Calculus/Consumer Math ● Chemistry/Anatomy & Physiology (H) or Physics (H) ● Elective ● Elective 	<p><u>Sample On Level 12</u></p> <ul style="list-style-type: none"> ● Hermeneutics & Christology ● Brit. Lit. & Comp. ● Cons. Math/Statistics/Pre-Calc. (H) ● Anat. & Phys. (H) ● Computer II/Symb. Art/Music App. ● Dual Enrollment Course 	<p><u>Sample Honors 12</u></p> <ul style="list-style-type: none"> ● Hermeneutics & Christology ● College English Comp. ● Pre-Calc. (H)/AP Calc. (H) ● Anat. & Phys. (H) ● Computer II/Symb. Art/Music App. ● Dual Enrollment Courses

HONORS/ACCELERATED PROGRAM

In an effort to encourage our students to take demanding advanced academic work and to provide them with coursework that enables them to be more competitive in their future academic pursuits, Mt. Airy Christian Academy offers honor courses for grades 9-12 and accelerated courses in English and Math for grades 6-8. The grading standard for honors is very rigid. Students taking honors courses are expected to spend considerably more time in preparation outside of class. Honors courses are weighted higher than regular classes in regards to G.P.A. On an honors scale, an A is = 5 points, B = 4 points, C = 3 points, D = 2 points and F=0 points.

ENTRANCE REQUIREMENTS FOR HONORS COURSES

GRADES 9-12

- Student must have a minimum 3.0 GPA (Middle school students must carry a B or above to be eligible for entering a freshmen level honors class).
- Student must be recommended for advanced courses from their prior teacher of the subject area they are seeking to enter as an honors student.
- Students seeking acceptance into honors English may be asked to present a writing sample (minimum of 2 paragraphs demonstrating proper grammar and writing ability).
- Students within honors class must maintain a 3.0 average in order to continue in the program. Students failing to meet the requirement will be moved to the regular class status in any class where they fall under a 3.0 average.

COLLEGE LEVEL EDUCATION OPPORTUNITIES

MACA's *Next Step* Program

MACA's *Next Step* Program offers college-level courses taken on the MACA campus. *Next Step* courses are taught by qualified Christian instructors approved as adjunct professors by Lancaster Bible College (LBC) and/or Howard Community College. These courses count toward high school requirements while also providing college credit through our partner schools. These credits may be transferred to other colleges and universities according to each college's incoming transfer process. Students eligible to enroll in these courses must be MACA seniors with a GPA of 2.50 or higher on a 4.00 scale. Current courses offered through the MACA *Next Step* Program include:

LAN 101 – English Composition

LAN 104 – Public Speaking

HIS 201 – U.S. History (1600-1877)

HUMN 101 - Introduction to Humanities

PHIL 101 - Introduction to Philosophy

BUS 102 – Introduction to Business

CHEM 105/115 – Chemistry and Society Lecture and Lab

BIB 103 – Creation & Covenants: OT I

BIB 104 - Israel's Life & Literature: OT II

BIB 105 – Biblical Hermeneutics

Off Campus/Dual Enrollment College Credit

- Twelfth grade students will be given the opportunity to take dual credit courses through other approved institutions.
- To be eligible for this, students must maintain a 3.0 GPA at MACA.
- Students must be on the MACA campus for at least five classes a day and must attend chapel weekly.
- Students will be eligible to play sports at MACA as long as they meet the above requirements, and they must be present for seven classes per day to be eligible for a student government or class officer position.
- The off-campus classes must be from an accredited college and must be approved by the Academic Dean or Registrar.
- College classes cannot hinder a student from going on events like the retreat.
- College credits must be for classes that are not offered at MACA.
- Dual credits will show on MACA transcripts as transfer credits.
- Students taking dual credits must maintain a 3.0 GPA.

MOUNT AIRY CHRISTIAN ACADEMY HIGH SCHOOL COURSE DESCRIPTION GUIDE 2018 - 2019

In order to provide the best educational materials possible, MACA's administration and staff review the curriculum constantly. As a result, all materials are subject to change. Course offerings are based on available faculty and adequate enrollment. Courses which do not meet minimum enrollment requirements will be cancelled.

Bible Department

Bible Basics – (1 credit)

Prerequisite - New students only

This course is intended for students who are new to studying the Bible. It contains an overall survey of the Bible as well as instruction on how to study the Scriptures.

HS Bible 9 – Old Testament Survey – (1 credit)

This survey course gives students an overview of each of the 39 books of the Old Testament. The study of the Old Testament will allow students to evaluate the differing views of God held by different Christian denominations as well as Jews, Muslims, atheists and many other worldviews who encounter the texts of the ancient Hebrews. The course is structured to examine the books of the Hebrew Scriptures from an historical, literary and spiritual perspective. The history of the ancient near east and northern Africa provides the backdrop for the literary genres of ancient narrative, suzerain-vassal treaties, prophetic and apocalyptic messages as well as ancient law codes, ancient Hebrew poetry and historical documentation. This course is focused on helping students reflect on the meta-narrative of progressive revelation as the writings of the Hebrew people develop a messianic expectation into the rise of the Roman Empire.

HS Bible 10 – New Testament Survey – (1 credit)

This survey course is intended to give students an overview of each of the 27 books of the New Testament. The study of the New Testament will allow students to evaluate the differing views of God held by different Christian denominations as well as Jews, Muslims, atheists and many other worldviews whose histories are intertwined with Christianity. The course is structured to examine the ancient texts of the koine Greek scriptures from an historical, literary and spiritual perspective. The history of the Hebrew people and the Roman Empire provides the backdrop for the literary genres of ancient biography, biographical theology, epistolary homily, pastoral epistles and apocalyptic messages as well as historical documentation. This course is focused on helping students reflect on the meta-narrative of progressive revelation as the writings of the followers of Jesus of Nazareth reflect the thinking and life situations of Christians in the 1st century.

HS Bible 11 – Comparative Religions – (1 credit) Summit Ministries' *Understanding the Times*

The goal of this class is to help students recognize the significance of some of the most influential ideas and values prevalent in our culture and to understand the assumptions about reality from which they arise. Students compare and contrast Christianity, Islam, Secular Humanism, Marxism-Leninism, New Age (Eastern religions), and Postmodernism. Students will read from and listen to proponents of these various views in order to accurately understand their beliefs. Throughout this course students will compare and contrast these different religious views in the disciplines of theology, philosophy, ethics, biology, psychology, sociology, law, politics, economics, and history.

HS Bible 12 – Christology & Senior Thesis Preparation – (1/2 credit) (Seniors only, one semester course)

The student will also examine the person of Jesus Christ and his work. Students write a 9-18 page Senior Thesis articulating and defending their faith. This assignment merges factual knowledge gained with reasoning skills developed into a final synthesis, involving both written and oral presentation. **This class is required for graduation.**

BIB 105 – Biblical Hermeneutics – (1 HS credit, 3 college credits, Honors)

Prerequisite - Seniors Only, one semester course. Dual Enrollment College Credit Course for Qualifying Students

This course is an introduction to the principles and practice of interpreting the Bible using the historical-grammatical-rhetorical method of interpretation. The course introduces students to key principles related to this method and then provides guidelines for applying these principles to determine the author's originally intended meaning. Students learn how to integrate electronic tools into the process. The course concludes with suggestions on how to determine the relevance of these original thoughts to our own lives. **This course is required for graduation.**

BIB 103 – Creation & Covenants: OT I – (1 HS credit, 3 college credits, Honors) One semester course.

Prerequisites - Juniors, and Seniors. Dual Enrollment College Credit Course for Qualifying Students

This course surveys the books of the Pentateuch, placing special emphasis on biblical beginnings and the development of the covenants as foundational for God's working in the rest of Scripture. Attention is given to background matters and critical and theological issues.

BIB 104 – Israel’s Life & Literature: OT II – (1 HS credit, 3 college credits, Honors) One semester course.

Prerequisites - Juniors, and Seniors. *Dual Enrollment College Credit Course for Qualifying Students*

This course surveys the historical books of the Old Testament from Joshua to Esther. Emphasis is placed on the poetic and prophetic books as they intersect Israel’s history. Attention is given to background matters and critical and theological issues.

Independent Study – (1 credit; *Juniors and Seniors only – Teacher pre-approval required*)

A student may explore a specialized area of biblical studies under the direction of a Bible teacher.

English Department

High School English

A research paper will be required every year for each high school grade.

Classic Literature, Grammar and Composition (English 9) – (1 credit) *Grammar for High School: A Sentence-Composing Approach*, various novels & short stories

To illustrate the breadth and depth of literature, this course focuses on a variety of genres from different time periods. Students investigate multiple literary devices and learn to apply them in their own writing. They have opportunities to master the writing process through multiple types of compositions, including short stories, essays, and journals. The course emphasizes proper essay format and correct use of citations, especially during the research essay unit. Through writing, students also develop their vocabulary, practice sentence clarity, and apply grammar and punctuation rules. In the novel and short story units, the students are introduced to Eliot, Shakespeare, Verne, Wells, and others.

Literary Genres and Composition (English 9 Honors/English 10) – (1 credit) Various sources

With a theme of “write for your audience,” this year’s class focuses on the impact of different types of writing on the audience. Students read a variety of works including *Uncle Tom’s Cabin*, *Night*, *Henry V*, and *Lord of the Flies*, among others. They apply literary analysis skills and develop a basic understanding of how worldviews are expressed in literature. The class includes special units on propaganda and advertising, as well as research paper writing. Students participate in several group projects and develop oral communication skills through presentations. Additionally, they develop writing clarity through work with modifiers, active voice, and parallel construction.

American Literature and Composition (English 10 Honors/English 11) – (1 credit) Various sources

Using classic novels from American literature as a foundation, students will focus on prominent themes across American history, culture, and society. As they read works such as *Huckleberry Finn* and *To Kill a Mockingbird*, they evaluate how authors treat and respond to the subject of racism. Classics like *The Crucible* and *The Great Gatsby* allow students to analyze character motivations while connecting those works to their respective time periods. Finally, the students will debate life in future America through a study of *Fahrenheit 451*. Throughout this course, students will develop their rhetoric both in group debates as well as evidence-based writing.

British Literature and Composition (English 12) – (1 credit) Various sources

How does literature reflect or shape society? This is the essential question students will confront in British Literature. From *Beowulf* to *The Canterbury Tales*, students journey through literary lore to discover why reading stories is essential to understanding a culture. As they enter the British Renaissance, they dive into the works of Shakespeare along with other prominent sonneteers of the day to relate to the feelings of both poetry and characters within a play. They continue to follow the highs and lows of the British people by analyzing the variety of works produced in the Restoration, throughout the Puritan Age, into Romanticism, and later under the leadership of Queen Victoria.

LAN 101: English Composition – (1 HS credit, 3 college credits, Honors)

Prerequisite - Seniors only. Dual Enrollment College Credit Course for Qualifying Students

In this course, students are introduced to the expectations and mechanics of academic writing. Through actively engaging in the research process, students discover and focus on a central idea, which they will support through a critical reading and *synthesis* of sources. This will enable the student to produce organized, supported, audience-driven, persuasive academic papers reflecting an awareness of the power of language to shape cultural perceptions and communicate a biblical worldview. A grade of C- or better is necessary for students to move on to fulfill their writing intensive course requirement. ***This course will transfer to many colleges and universities as the English Composition course required for most two- and four-year degrees.***

Independent Study – (1 credit; *Juniors and Seniors only – teacher pre-approval required*)

A student may explore a specialized area of English under the direction of an English teacher.

Foreign Language Department

Spanish I – (1 credit) McDougal Littell’s *Avancemos I*

Since this is a beginning course in Spanish, students are taught to speak, read, and write simple Spanish. Students will begin training their ear to hear and interpret short Spanish passages. Vocabulary and grammar are stressed. Simple grammar such as articles, noun-adjective agreement, present tense, and simple preterit are taught. Some time is spent on Spanish culture.

Spanish II – (1 credit) McDougal Littell’s *Avancemos II*

Prerequisite – *Spanish I*

This course has its emphasis on listening comprehension, speaking, and writing. The student will learn the present, preterite, imperfect, present progressive, subjunctive, and future tenses. The student will move beyond the basics of sentence structure and learn the subject and verb complements in depth. The last objective is to teach the student to integrate language and culture as one whole. This will enable the student to visualize the Hispanic as people in need of salvation, not people strange and remote from them.

Greek I, II, III, IV – (1 credit each) *Essentials of New Testament Greek* by Ray Summers and Thomas Sawyer, study guide by Stephen Cox

Prerequisite – *Teacher approval*

An elementary study of the vocabulary, forms, and basic grammar of the Greek New Testament. Students will translate simple sentences into Greek and more advanced sentences from Greek to English to reinforce instruction.

Independent Study – (1 credit; *Juniors and Seniors only – teacher pre-approval required*)

A student may explore a specialized area of language studies under the direction of a language teacher.

Mathematics Department

Pre-Algebra – (1 credit) Holt McDougal *Pre-Algebra*

This is a pre-algebra class designed to focus on fundamental algebraic problem solving as well as review in fractions, decimals, ratio, percent, exponents, and basic geometry. This is a preparation for Algebra I.

Algebra I – (1 credit, Honors and Regular) Houghton, Mifflin, Harcourt *Algebra I*

Prerequisite – "C" minimum average in *Pre-Algebra* or a teacher's recommendation

This course covers equations, inequalities, functions, systems, and exponents. Problem solving is emphasized through linear equations, polynomials, factoring, and quadratic equations. Students will learn to think both inductively and deductively. **This course is required for graduation.**

Geometry – (1 credit, Honors and Regular) Houghton, Mifflin, Harcourt *Geometry*

Prerequisite – *Algebra I*

Geometry will cover the fundamentals of two-column proofs using theorems and postulates with an emphasis on reasoning skills. Students are introduced to parallel and perpendicular lines, triangle congruence, and properties and attributes of triangles, polygons, quadrilaterals and circles. Reasoning and problem solving are emphasized using trigonometry, transformational geometry, and spatial reasoning. **This course is required for graduation.**

Algebra II – (1 credit, Honors and Regular) Holt-McDougal's *Algebra II*, Houghton Mifflin Harcourt

Prerequisite – *Algebra I, Geometry*

Algebra II presents an overview of Algebra I at the beginning of the course. The concepts of relations and functions will be applied to the coordinate plane. Students will learn simplifying and factoring of polynomials using the FOIL method and binomial expansion which will be used later in Trigonometry. Conics, trigonometric functions, irregular areas, logarithmic functions, and statistics will be covered briefly. Students learn that the order found in mathematics exists because of the God who created an orderly universe. This course includes practice and preparation for college entrance exams.

SAT Prep – (1 credit, Pass/Fail Course) *Preparing for the SAT Mathematics* Amsco School Publications

Prerequisite – *Geometry OR Teacher approval*

SAT Prep provides a complete review of topics covered in the mathematics portion of the SAT, including the new Level 2 topics that debuted on the 2016 test. Mathematic sections of the SAT focus on a student's reasoning and problem-solving skills in four basic categories: Arithmetic-Numbers and Operations, Algebra and Functions, Geometry and Measurement, and Number Patterns, Probability, Statistics, and Data Analysis. The newer levels focus on real-world contexts. SAT Prep is a P/F class.

Pre-Calculus – (1 credit, Honors) McDougal-Littell’s *Pre-Calculus*

Prerequisites – *Algebra I, Algebra II, and Geometry*

Advanced mathematical concepts expand on topics from intermediate algebra; these are developed thoroughly to ensure understanding. Plentiful examples develop concepts within a clear, concise format. Students learn key skills through annotated examples, chapter reviews, tests, and exercises. Selected answers help students check their own progress. The content includes linear relations and functions, theory of equations, matrices and vectors, the circular functions, the trigonometric functions, sequences and series, polar coordinates and complex numbers, conics, probability, and descriptive statistics. This course includes practice and preparation for college entrance exams.

AP Calculus AB – (1 credit, Honors) Holt-McDougal’s *Calculus: An Applied Approach*

Prerequisite – *Pre-Calculus*

AP Calculus AB is roughly equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. The AP course covers topics including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections among these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions. Students who desire to enroll in the AP Calculus AB test given at the end of the year can qualify for college credit based on their test score.

Consumer Math – (1 credit, *Juniors and Seniors only*) BJU Press’ *Consumer Math*

This course is designed to help students develop competency in a variety of mathematical concepts and develop thinking and reasoning skills and problem-solving abilities. Real-world problems are investigated using algebraic, graphical, and numerical techniques. Topics include credit cards, energy costs, mortgages, investments, savings, health, accident and homeowner’s insurance, and more.

Independent Study – (1 credit; *Juniors and Seniors only* – *teacher pre-approval required*)

A student may explore a specialized area of mathematical studies under the direction of a math teacher.

Physical Education Department

Students in grades 9-12 who have not obtained a P.E. credit will be given preference for P.E. classes. High school students do not need to participate in P.E. classes if they participate in at least two MACA sports. The coaches will provide students with P.E. grades. Each MACA sport earns 1/2 credit towards P.E. with a limit of one credit total.

Physical Education – (1 credit required; courses in ½ credit increments)

This course is designed to improve the student's fitness and skill development through vigorous practice and competitive participation. The student will develop an appreciation for the rules, knowledge, and strategies of team and individual sports. Instructors strive to help the student develop Christian sportsmanship through self-control, fair play, group interaction, and cooperation.

Health – (1/2 credit)

Taught from a Christian perspective, this course is designed to provide high school students with an understanding of the basic needs of the human body. It will help students care for themselves physically, emotionally, socially, and spiritually.

Independent Study – (1 credit; *Juniors and Seniors only – teacher pre-approval required*)

A student may explore a specialized area of Physical Education studies under the direction of a PE teacher.

Science Department

Earth and Space Science - (1 credit)

Students will investigate a wide range of topics in Earth and Space science through hands on demonstrations, lab activities and various research projects. They will learn an appreciation of the difficulty of studying the complex systems that make up Earth and space. Topics in this course include but are not limited to the structure and systems of the Earth, weather and climate, astronomy and the controversial topic of Earth's history from a biblical worldview.

Biology – (1 credit)

Prerequisites - Algebra 1 or Current enrollment in Algebra 1 (with teacher approval)

Students investigate biology at a molecular, cellular, and macrobiological level through hands-on demonstrations, lab activities, and various research projects. It includes information on the attributes of life, basic biochemistry, major metabolic process (photosynthesis, respiration, etc.), genetics, and classification. The second half of the course is spent exploring the various living organisms in the kingdoms including bacteria, protists, fungi, plants, and animals. Students become familiar with the scientific process and learn good research and science writing habits. **This course is required for graduation.**

Chemistry – (1 credit) BJU Press' *Chemistry*

Prerequisites – Algebra I and Biology; enrolled concurrently in Algebra II or completed or teacher recommendation

Students investigate various facets of chemistry through hands-on demonstrations, lab activities, and various research projects. They also learn an appreciation for the history of chemistry and

chemical research by examining the development of the atomic model and the Periodic Table. Topics in this course include, but are not limited to, unit analysis (the mole), stoichiometry, gas laws, solutions, and acid/base chemistry.

Anatomy & Physiology – (1 credit, Honors) Elsevier Mosby's *The Human Body in Health and Disease*

Prerequisite – *85 or higher in Biology and/or teacher recommendation*

Students will develop an understanding of the function of the human body as a whole by examining the various organ systems that make it up. For each system, the anatomical structures will be studied, but the physiological function of those structures will also be explored by examining the various disorders and diseases associated with these organ systems. Students will gain some hands-on experience with anatomical structures through dissection and procedures, such as measuring blood pressure.

Physics – (1 credit, Honors) BJU Press' *Physics*

Prerequisites – *85 or higher in Biology and Algebra II, enrolled concurrently in Pre-Calculus or completed Pre-Calculus, or teacher recommendation*

Students will study the fundamental laws of physics through a math based practical application of physics to real-world problems. The course includes hands-on demonstrations, lab activities and various research projects so that students can gain a more independent approach to the design of scientific research projects. Topics covered in this course include kinematics, dynamics, Newton's laws, work, power and a variety of others. Unlike the Integrated Chemistry and Physics class offered, this course goes beyond the fundamental concepts of physics.

Emerging Pathogens: Infectious Disease ($\frac{1}{2}$ credit, one semester, *Juniors and Seniors only*)

Students will explore the microscopic world of pathogenic microbiology and learn about the control, treatment and prevention of disease. Topics covered will include fundamental concepts in the morphology, physiology, genetics and ecology of bacteria. Students will explore application of microbiology to medicine, the food industry and biotechnology in various lab activities.

CHEM 105 – Chemistry in Society – (1 HS credit, 3 college credits, Honors) One semester course.

Prerequisites - *Sophomores (with approval), Juniors, and Seniors. Dual Enrollment College Credit Course for Qualifying Students*

Students will apply knowledge of chemical concepts and ethics to think critically about current environmental, consumer, health, industrial, and technological issues. Students will gain an understanding of basic chemical concepts in the everyday world and knowledge of the role chemistry plays in personal and professional lives. Basic chemical concepts will be introduced and their impact on society will be discussed.

CHEM 115 - Chemistry in Society Lab - (Concurrent enrollment in CHEM105, .25 HS credit, 1 college credit, Honors)

Prerequisites - *Sophomores (with approval), Juniors, and Seniors. Dual Enrollment College Credit Course for Qualifying Students*

After successful completion of this laboratory, students will have an understanding of the metric system, basic laboratory measurements, and instruments. Students will investigate methods of separation, synthesis, and chemical analysis using samples of common household substances. Students will analyze labels and claims from a consumer's point of view. ***This course (in conjunction with CHEM 105) will transfer to many colleges and universities as a general education science lab course. This course may be taken in place of general Chemistry.***

Independent Study – (1/2 credit per semester; *Juniors and Seniors only – teacher pre-approval required*)

A student may explore a specialized area of science under the direction of a science instructor.

Social Studies Department

American Government – (1 credit) BJU Press' *American Government, A Christian Manifesto, and The 5000 Year Leap*

The students learn about the people who founded our nation; the biblical and natural rights foundation upon which our country was established; the founding documents; the structure and outworking of our government on the federal, state, and local level; the elective process; the history of and lessons derived from the Civil Rights Movement; how our government compares to other governments throughout history; and the keys to good government and responsible Christian citizenship. Students also take an in-depth look at current issues and apply Biblical and Constitutional truth to them, developing research and critical thinking skills in the process. **This course is required for graduation.**

World History – (1 credit) BJU Press' *World History*

In World History, students examine the rise of civilization from a biblical worldview perspective. The students study the purpose and nature of historical research, ancient civilizations, the Greco-Roman empires and the emergence of western civilization, the rise of Christianity and Islam, the medieval period, the dominance of the Roman Catholic during the Middle Ages, the Reformation, and the Renaissance. The Age of Discovery and Enlightenment is also studied so students gain an understanding of the establishment and importance of the modern world. They learn about the the New World, leading into the foundations of America. **This course is required for graduation.**

U.S. History – (1 credit) BJU Press' *U.S. History*

The course of study covers the history of the United States from the antebellum period and the Civil War through to the present day. Emphasis is placed on understanding the lessons of our history and the impact of our Christian heritage throughout. The instructor gives attention to the forces leading to the Civil War, Reconstruction, the Gilded Age and Progressive eras, the Great Depression, the involvement of the United States in the two world wars, the Cold War, the 1960s, and the rise of modern America, beginning and ending with the events of September 11, 2001.

This course is required for graduation.

American Military History - (½ credit) One semester course. *American Military Atlas, and With the Old Breed*

This course will examine the development of the American military from the founding era through the wars in Iraq and Afghanistan. Emphasis will be placed upon a survey of the history of each military branch as well as an overview of the nation's major conflicts and their significance within the context of American history overall. Additionally, the class will include a research-based analysis and evaluation of individual and unit service and combat experience, military strategy and tactics, and the impact and lessons of leadership.

HIS 201 – U.S. History I (1600-1877) – (1 HS credit, 3 college credits, Honors) One semester course.

Prerequisites - Sophomores (with approval), Juniors, and Seniors. Dual Enrollment College Credit Course for Qualifying Students

America traces its national existence back to a European experiment that had many different purposes from economic enterprise to religious utopianism. This class will trace the history of the United States from its founding through its revolution of independence to its near collapse in the Civil War. Following a chronological scheme, students will focus on the persistent themes in American society, economics, and politics in addition to recognizing the innovation associated with America's growth. ***This course will transfer to many colleges and universities as part of general studies requirements. This course may be used to meet the Maryland US History course requirement for graduation.***

Independent Study – (1 credit; *Juniors and Seniors only – teacher pre-approval required*)

A student may explore a specialized area of social studies under the direction of a social studies teacher.

Technology Department

Computer Science 1 (1 credit)

Geared primarily towards providing high-school students with the foundational skills necessary for success in MACA's digitally enhanced learning environment. Students will develop advanced word processing, presentation, and spreadsheet skills, as well as intermediate website development and graphic design skills. Students will learn "digital citizenship" principles while using social media tools including Blogger, Twitter, and Google+, and will begin developing a digital portfolio and "positive digital footprint" using online tools.

Computer Science 2 (1 credit)

Prerequisite: Computer Science 1

This course is geared primarily towards preparing students for life after graduation from MACA. Emphasis is placed on becoming a highly adaptable user of technology who is able to intuitively develop and apply solutions to various scenarios using cloud/web based tools. Students will develop advanced website development, graphic design, and project management skills, as well as basic programming skills. They will continue to build on their digital portfolio and "positive digital footprint" using social media tools including Blogger, Twitter, and Google+, for the purpose of positioning themselves for college and career opportunities.

Technology Assistant (IT) – (1 credit)

Prerequisite: Computer Science I and Teacher approval

A technology assistant (IT) works within classrooms during an assigned class period as a troubleshooter for technology-based issues. The assignments will be given by the Technology Manager. The IT will focus on Chromebook, iPad, and Moodle questions and concerns for both staff members and fellow students. The IT will also work on application downloads, updates, and other maintenance items. All candidates must be interviewed and pre-approved by the Technology Manager.

Independent Study – (1 credit; Juniors and Seniors only – *teacher pre-approval required*)

A student may explore a specialized area of technology studies under the direction of a technology teacher.

High School Electives and Education Enrichment Program (EEP) Classes

Electives are offered according to student demand, teacher availability, and scheduling accommodations. Students must earn at least one credit in Fine Arts and one-half credit in Health to graduate. Electives and EEP classes run on a semester basis. **MACA reserves the right to not offer an elective if there is not sufficient interest.**

Fine Arts Electives

HS Studio Art – (1 credit)

Studio art is designed to give the students experience with a variety of media, as well as exposure to the major movements in the field of art. Students will learn to create with the elements of art (line, shape, color, value, texture, space, and form), as well as demonstrate a knowledge and appreciation of art styles and composition

Concert Band– (1 credit)

Students learn the techniques of playing instruments, working to develop ensemble and solo performances. Tonal quality and technical facility are developed. Students discuss and constructively comment on their own performances and on the performances of the band. Students will be asked to perform outside of normal class hours for programs and chapels. **This is a combined middle school high school/course.**

Journalistics – (1 credit)

(Logistics of Journalism) This course is designed for students interested in journalism and developing their skills as a writer. The course explores various topics including the "nuts and bolts" of reporting and writing, content issues, ethical responsibility, interviewing skills and basic vocabulary. Students will learn the fundamentals of news, feature, editorial and sports writing. Students will create a variety original stories using differing structures and writing techniques. Students will also collaborate to publish a monthly school newspaper.

Yearbook – (1 credit)

In this course, students will gain skills in one or more of the following areas: design, advanced publishing techniques, copywriting, editing and photography while producing a creative, innovative yearbook which records school memories and events. There is an emphasis on journalism skills in this class. Participants gain useful, real world skills in time management, marketing, teamwork and design principles.

Art: Symbolism and Metaphor – (1 credit)

This course will examine and explore not only the history of symbolism and metaphor in art from the past but also what can be interpreted as modern symbolism. Students will begin to establish their own symbolic iconography. The ultimate goal is that by establishing a “language” the student can express his/her own personal visual narrative. Students will have the opportunity to create their personal art portfolio.

Other Electives

Communication – (1/2 credit)

Communication is a one semester course which includes discussions of the communication process, audience analysis and public speaking guidelines. Students demonstrate the assimilation of these abilities through specific exercises, written assignments, group activities, speech performances, constructive criticism, and practice cases. Speaking projects include introductions, interviews, demonstration speeches, declamations, informative speeches, devotional speeches, and persuasive speeches. **This course is required for graduation.**

STEM Elective – (1 credit)

Inspired by the nationwide attention on science, technology, engineering, and math education, the result has been the creation of a unique course, simply called STEM. Students attend STEM in addition to their regular science and math classes. The STEM course, however, is not an add-on math, science, or technology course. The goal of STEM is to foster a learning environment in which students are guided to produce original ideas, objects, and structures according to certain specifications using concepts and skills from math, science, and technology. Although students make the math, science, and technology connections, those are still not the main focus of the course. Rather, the mission of the course is to grow students' capacity for creativity and back-loaded learning in a STEM context.

College and Career Preparedness – (½ credit, 1 semester, fall only) (Seniors only)

The College and Career Preparation course presents a unique opportunity for seniors to have the resources and assistance they need in order to successfully navigate the challenges of exploring careers and majors, the college search process, applying to colleges, application essay writing, investigating ways to finance college, college/campus life and job application skills (cover letters, resumes, and interviewing). The goal of the course is to provide instruction in topics that will be most practical and helpful to the student's senior-year needs and transition beyond MACA. Grading of the course will come from engaging in classroom projects/activities, meeting deadlines, completing practical assignments, and taking tests and quizzes.

LAN 104 – Public Speaking – (1 credit, 3 college credits, Honors) One semester course.

Prerequisites - Juniors, and Seniors. Dual Enrollment College Credit Course for Qualifying Students

This course is designed to enable students to speak effectively on selected subjects using various methods. Classroom practice is given in oral and interpretive readings. Study is given to the correct preparation and delivery of different kinds of speeches as well as the use of correct speech habits and behavior. ***This course will transfer to many colleges and universities as the communication course required for most two and four year degrees. This course may be used to meet the MACA Communication course requirement for graduation.***

BUS 102 – Introduction to Business – (1 credit, 3 college credits, Honors) One semester course.

Prerequisites - Seniors Only. Dual Enrollment College Credit Course for Qualifying Students

This introductory course will investigate the role business plays in society and will discuss using a career in business as an area of ministry. Through an examination of the major functional areas of a business, students will be better able to determine the use of business as a career and ministry path. The biblical character of Nehemiah will be used as a case study to help students consider the necessary skills and perspective Christians need to be successful in life and the business world.

HUMN 101 - Introduction to Humanities (1 credit, 3 college credits, Honors) One semester course, hybrid structure.

Prerequisites - Sophomores (with approval), Juniors, and Seniors. Dual Enrollment College Credit Course for Qualifying Students

This course is an introduction to the humanities as an academic discipline which studies the human condition, using methods that are primarily analytic, critical, or speculative, as distinguished from the mainly empirical approaches of the natural and social sciences. This course helps students see context and make connections across the humanities by tying together the entire cultural experience through a narrative storytelling approach.

PHIL 101 - Introduction to Philosophy (1 credit, 3 college credits, Honors) One semester course, hybrid structure.

Prerequisites - Sophomores (with approval), Juniors, and Seniors. Dual Enrollment College Credit Course for Qualifying Students

An introduction to world philosophy, from a Christian Worldview which begins with the Western tradition and includes Asian and traditional African Worldviews, as well as the voices of women philosophers and the peoples of the Americas. Focus is on major theories of reality (metaphysics), knowledge (epistemology), value (axiology), and logic.

Teacher's Aide – (1/2 credit per semester; *Juniors and Seniors only; pre-arrangement with teacher*)

Students will be given the opportunity to assist teachers or work in the library under the approval of the Media Center Director. Possible duties include helping with bulletin boards, carrying items to the office, making copies, working with a younger struggling student, or grading papers. Students will maintain a daily journal as well as complete a quarterly paper or project. The Secondary Principal will assign interested students to a staff person who has a need for an aide.

Non-Credit Electives

Study Hall – (No credit)

Students may enroll in a study hall for any class period during the day.

High School Education Enrichment Program (EEP) Classes

Drama – (1/4 Fine Arts credit each semester)

Drama class will attempt to work on two major productions throughout the year and/or possibly some small skits. Students will learn proper technique of acting and speaking and will apply what they have learned in the productions.

HS Audio/Tech Team – (1/4 Fine Arts credit each year)

In this introductory course, students learn the fundamentals of sound board technology and how to control and mix sound during a performance. As students advance, they use their skills to support MACA programs and weekly worship services.

HS Worship Team – (1/4 Fine Arts credit each semester)

Students (singers and musicians) must audition for a place on the team. The worship team will learn and lead the music for the weekly Chapels. Students may also be asked to perform at various school programs such as Grandparent's Day, Baccalaureate, Awards Ceremonies, etc. We also need students to perform audio-visual and sound board duties.

MACA reserves the right to cancel any class for insufficient enrollment.