

STONEBRIDGE UPPER SCHOOL COURSE CATALOG

*Building the character of Christ
upon the individual student's Christian commitment through . . .
Scholarship, Service, Stewardship, and Statesmanship*

StoneBridge Upper School has a particular nature and mission that sets it apart from other Christian high schools in America. The academic course offerings continue the classic, historic, Christian emphasis begun at the elementary level of learning and are designed to consummate the cultivation of self-directed learners. Biblical principles at the heart of every subject equip our students with a Biblical world and life view which they are able to articulate and defend.

Our ennobled upper school program is based upon the Christian idea of man and government that recognizes the unique creation of each individual, and the value of each invested with the image of God and the responsibility for personal self-government. Dedicated to educating the whole man, the upper school program is intentionally designed to balance its rigorous academic schedule with courses and activities designed to nurture the aesthetic tastes, the sociability, the spiritual stature, and the physical body of each student. The program provides for growth in Christian character, habits, manners, and leadership skills through academic courses as well as outstanding fine arts and athletic programs, and a diverse offering of extra-curricular activities. Therefore, our graduates not only complete rigorous academic requirements that surpass the standard high school requirements, but are athletes, actors, artists, musicians, and missionaries—leaders among their peers, ambassadors for Christ!

The rich curriculum and methodology of our upper school program are based upon the Principle Approach of American Christian education and the Notebook Method which provide students with the tools and habits of lifelong Christian scholarship. Our scholars are trained to seek God's Word and research primary sources, taught the principles of logic in thinking and reasoning, and required to relate Biblical principles to their assignments, as well as to their own lives. Extensive research, writing, and project development enable our graduates to reason from cause to effect and competently communicate ideas and principles. Our scope of studies builds a strong foundation in America's Christian history and government, literary classics, mathematics, physical and life sciences, foreign languages, and the interdisciplinary study of the fine arts. Honors and AP level courses allow qualified students to pursue studies that will best prepare them for their post-secondary majors and careers. Our students successfully compete with their peers for college entrance and scholarship awards, nationally.

Diploma Options

Students have the option of earning the Advanced Studies Diploma (college preparatory) or the General Studies Diploma. The requirements for each diploma are listed below. Further clarifications and requirements are given in the bulleted list and should be carefully noted.

Graduation Credit Requirements

ADVANCED STUDIES DIPLOMA*†		GENERAL STUDIES DIPLOMA	
Bible	4‡	Bible	4‡
English/Literature	4	English/Literature	4
History/Government	4	History/Government	4
Mathematics	4	Mathematics	4
Science	4 (at least 3 lab-based)	Science	3 (at least 2 lab-based)
Physical Education	2	Physical Education	2
Fine & Performing Arts	1	Fine & Performing Arts	1
Thesis	¼	Thesis	¼
General Electives	6	General Electives	5
Foreign Language	3	Foreign Language	2
Total	32¼	Total	29¼

Graduation Requirements

The following are requirements for graduation from StoneBridge School:

- * The *Advanced Studies Diploma* requires the student to pass at least one mathematics course beyond Algebra II, a fourth year of science, and three years of the same foreign language.
- † An *Advanced Studies Diploma with Distinction* is awarded to the Advanced Studies Diploma candidate who also passes at least four honors or AP level courses.
- ‡ Each student must attend and earn a successful credit in a Bible course for only the years he is enrolled at StoneBridge School. All high school students must take one required Bible course per year.
- All high school students must take one required English course per year. Students will not be allowed to sequence required English courses within the same school year.
- All high school students must take one required History course per year. Students will not be allowed to sequence required History courses within the same school year.
- The Grade Point Average (GPA) is the weighted average of all official SBS high school courses. Transfer or alternative courses, credits, and/or grades will be recorded on the transcript and will be credited toward graduation requirements but not calculated in the GPA. All transfer credits must be approved by the Director of Instruction before they are counted toward StoneBridge graduation requirements. Dual Enrollment courses taught on our campus by StoneBridge teachers will be calculated in the GPA. The GPA is calculated on a 4.0 scale, using 4.5 for Honors and Dual Enrollment courses and 5.0 for AP courses.
- Physical Education credits are earned through participation in StoneBridge School team sports (1 sports season = 1 credit). These credits are posted as Pass/Fail and do not factor in the GPA.
- General Elective credits may be met by taking any course in any department above and beyond the other graduation credit requirements. For instance, a fourth year of a foreign language or a fifth course in mathematics would fulfill one general elective credit.
- Freshmen and sophomores must take four courses/credits each term unless special approval is given by administration or the schedule will not allow. Juniors and seniors may have the option of taking three courses per semester. However, most colleges want a vigorous course of study; therefore students are encouraged to continue taking four courses each semester.
- Credits are verified by documentation of attendance hours, final course grades, and exam grades (when applicable).
- Meeting graduation requirements does not automatically ensure that the student has met college entrance requirements. Students are strongly encouraged to become familiar with the entrance requirements of their college(s) of interest.

Alternative Course Credit Options: In addition to official SBS high school courses, students may pursue graduation credits through approved alternative study options (e.g., summer school, independent studies, college courses) in keeping with their long-term academic plans. Students must meet required prerequisites and obtain proper approval in advance by the Upper School Director of Instruction and College Counselor before beginning such studies. This provision is generally reserved for juniors and seniors and additional fees are assessed above full tuition. Forms are available from the Upper School College Counselor.

Honors, Advanced Placement and Dual Enrollment Courses: These courses are designed to challenge high school students at an advanced or collegiate level. Therefore, the requirements of these courses exceed the standards for other courses with regard to pacing, content, homework loads, test schedules, etc. Students may not request or expect any special provisions or accommodations in these courses. Teacher approval is required for admission into these courses; special testing and summer work may be required. Extra fees and the purchase of textbooks may also be required. **Note:** Advanced Placement and Dual Enrollment classes are offered for eligible 11th and 12th graders only.

Dual Enrollment: SBS partners with John Brown University to offer an English Composition dual enrollment course. Students will enroll in John Brown University and receive high school and college credit upon successful completion of the course. The course will be taught at StoneBridge in the regular schedule by our English teacher, who is an adjunct John Brown University faculty member. The John Brown University course costs \$345. The course will be taught using the university's curriculum, and students will have to purchase any required textbooks. See the course description below for prerequisites. In order to offer the dual enrollment course, there must be a minimum of eight enrolled students.

Out of Placement Requests: Students and parents who request enrollment in a course against the placement recommendation of the faculty and administration, will be required to sign an Out-of-Placement Contract delineating the limits of responsibilities of the teacher of the course and the potential consequences.

Recommendations and Permissions: Prerequisites that require teacher recommendations or permissions to take Honors, Dual Enrollment, and AP level courses are addressed and handled by faculty and administration. Students and parents simply need to indicate their preference for these courses. If recommendations or permissions are not granted, students are not placed in these courses.

STONEBRIDGE UPPER SCHOOL COURSES OF STUDY

Prerequisites are indicated where necessary. Most courses follow a prescribed scope and sequence. Students are automatically enrolled in the next course in the sequence upon successful completion of the requisite course.

DISCLAIMER: Courses described in this Catalog may not be offered during every academic school year. School enrollment, number of students requesting the course, availability of faculty, and scheduling conflicts are some factors that affect our ability to offer all courses.

Department of Dialectics

Dialectics is a classical term defined as “That branch of logic which teaches the rules and modes of reasoning” (Webster, 1828) and as “The art of reasoning by discussion of conflicting ideas.” (*Webster’s New Explorer Dictionary*, 1999) At StoneBridge School the Department of Dialectics includes courses in history, literature, and Bible.

*...for out of the abundance of the heart the mouth speaketh.
A good man out of the good treasure of the heart bringeth forth good things...*
Matthew 12:34b, 35a

A Vision for Students through the Dialectics

The Dialectics faculty seeks to guide students in the disciplines of Bible, English and History through works of enduring excellence to promote reasonable discourse, as they explore what ought to be done by man to the glory of Almighty God.

Purpose for Studies in the Dialectics

The courses of study in the Department of Dialectics are designed to develop in students a holistic view of God’s providential plan for man (His-story) and an understanding of the revelation of God to man through His Holy Word. The courses are constructed to allow students regular practice researching, reasoning, relating, recording and articulating in both oral and written form, their understandings and convictions in defense of the Christian faith as they are prepared for their roles in restoring the Christian character and Gospel purpose of our nation.

Description of Courses

Bible

NOTE: All Upper School students must also complete elements associated with Chapel, Fall Retreat and other activities in order to fulfill Bible course credit requirements.

Bible 6: Introduction to Old Testament Survey

This course reinforces and expands the student’s understanding of the basic theological themes of the Old Testament through a chronological progression of the books of the Old Testament. Students are taught to systematically study the Word of God through leading ideas, emphasizing key individuals, word study, and verse memorization, which serve to shape Christian character and advance a biblical worldview.

Bible 7: Introduction to New Testament Survey

Students continue to approach the study of the New Testament thematically and chronologically beginning with the historical books and progressing through the epistles to prophecy. The essential truths of Scripture are learned through verse memorization, word study, creative storytelling and theatrical and artistic expression as students interact with the principles of the Word, identify with key individuals, and learn to divide truth from error in solidifying their emerging biblical worldview. Special emphasis is placed on understanding the nature of God and the ministry of His son, Jesus.

Bible 8: Bible Doctrines

This Bible Doctrines course is designed as a survey of the essential truths of Christianity that will help students defend their faith in Christ within modern culture. Topics such as the plenary nature of the Godhead, Creation, the

nature of man, sin, Satan, redemption, and the wisdom of the Christian life are taught with a focus on defense. Students will be challenged to evaluate cultural information based upon the validity of Scriptures.

Bible 9: Old Testament Survey

1 Credit

This course is designed to extend the student's understanding of the origins, purpose, organization, literary structure, and content of the Old Testament Scriptures, in order to firmly grasp the nature of God and His dealings with man as displayed throughout history. The central themes of this course are the covenantal promises of God, His relationship with His people, the redemptive-historical thread of the Bible, the unique positions of Israel and the Church, the basis for moral conduct and civil government, and the key individuals who demonstrate godly lives vs. those who do not. Students will work toward a holistic and harmonious understanding of the foundational doctrines and essentials of Christian faith found in both Old and New Testaments.

Bible 10: New Testament Survey

1 Credit

This course is designed to equip the student to love God with body, soul, and mind through systematic study of the tenets of the faith. The student will learn will be introduced to the basics of exegesis and hermeneutics. Students will examine the unique archaeological and historical evidence supporting the Bible as the inerrant Word of God and will investigate the principle of First Mention and typology in order to provide a complete framework for identification with a biblical worldview. Students will also discover their own unique gifts and talents and identify their places within the Great Commission. Special attention will be given to the covenantal framework for redemptive history and analysis of current events through the lens of a biblical worldview.

Bible 11: Apologetics

1 Credit

This course is designed to equip the student to defend his faith from a biblical perspective. The core doctrines of Christianity (Bibliology, Theology, Christology, Pneumatology, Soteriology, Anthropology, Hamartiology, Angelology, Ecclesiology, and Eschatology) are taught from both a broad and a specific focus depending upon the topic. Students are taught that it is imperative to know the basis of their own belief system before trying to defend it against other world religions. Students are taught to compare and contrast several world religions with the foundational truth of Christianity.

Bible 12: Senior Seminar

1 Credit

This course is designed as the proving ground for demonstration of the biblical worldview within the family, ecclesiastical and civil dimensions, which is necessary for the Christian Statesman. Students prepare for their senior thesis further fixing their Biblical worldview through research and writing. Students prepare for and practice Christian ministry and American statesmanship via the European trip. Readings and discussions cause students to confront the issues of college and adulthood with pure Christian convictions.

English and Literature

English 6

The student will learn that the Bible is the highest standard of literary excellence; “the source and seedbed of literature and liberty.” Students will understand that language is a gift, given by God. Exposure to a variety of classic literature will inspire students towards an appreciation of language and its mastery for speech and composition. Additionally, students will continue to build their syntax, orthography, and etymology foundations. Students will also continue to build Biblical reasoning and critical thinking skills from leading ideas, principles and literary themes.

English 7

The student will realize that literature is the “handmaid of history” as various works of literature are studied through a Biblical worldview. Students will observe “literature as a subject influenced by Christianity’s westward move to the New World.” The study of literature includes language, which the student will cultivate through the continued use of syntax, etymology, and composition. Students will demonstrate their language and literary mastery through a class production of a classic Shakespearean play.

English 8

The student will utilize reasoning skills from a Biblical worldview as we read and study both classic pagan and Christian literature. Students will also analyze the core principle of the Christian idea of man and government throughout each literature study. Key syntax and composition principles will be reinforced and practiced. The culminating project of this year will be the 8th Grade Speech, where students will demonstrate their mastery of syntax, composition, and language skills, as well as their ability to present a relevant topic from a Biblical worldview.

English Literature I (Grades 9/10)**1 Credit**

Students read classical British literature from the Anglo-Saxon time period through the Puritan Age. The literature includes *Beowulf*, *The Canterbury Tales*, *The Faerie Queene*, Shakespeare, and *Paradise Lost*. Students write frequent and varied compositions as they examine literature. (This course is offered on alternating years.)

English Literature II (Grades 9/10)**1 Credit**

Students read classical British literature from the Restoration Period until the twentieth century. The literature includes *The Pilgrim's Progress*, *Pride and Prejudice*, *Great Expectation*, and *The Screwtape Letters*, as well as romantic and Victorian poetry. Significant compositions are part of the examination of the literature, including the composing of an allegory in the style of *The Pilgrim's Progress*. (This course is offered on alternating years.)

American Literature I**1 Credit**

American Literature begins with the inspirational writings of our Founding Fathers and culminates in our country's First National Period. It spans the content of essays, poetry, letters, dramas, speeches, and short stories. William Bradford's masterpiece *Of Plymouth Plantation* and the beautiful poetry of Anne Bradstreet set the stage for God's providential hand in the life of Christian America. The prose writings of Washington Irving and Edgar Allan Poe provide some of the first American short stories for students to ponder and consider, while Poe's inspirational poetry allows students to reflect on both the positive and negative effects of Romanticism from a biblical worldview. In addition to regular tests, this course includes weekly writing instruction, bi-weekly vocabulary quizzes, and written essays at least four times per quarter. The Oration Project is adjunct to this class.

Honors American Literature I**1 Credit**

The span of this course parallels American Literature I with the addition of a thorough study of pre-revolutionary and revolutionary political and literary figures. The Socratic Method is utilized more frequently, and students are introduced to reading and responding at a deeper level of scholarship. Speeches and writings of America's Founding Fathers offer students the opportunity to understand and apply the rules of logic to their own well-structured written argument. Students in this honors-level course are required to participate in the Socratic Seminar and in an outside reading project that entails a thorough presentation. In addition to regular tests, this course includes weekly vocabulary quizzes and weekly writing instruction and assignments. The Oration Project is adjunct to this class.

Prerequisite: English 10; GPA average of 90; Course teacher's recommendation

American Literature II**1 Credit; Thesis Project 0.25 Credit**

This course begins with the poetry of the American Civil War and culminates with the novelists of the 20th century. Particularly through the study of the 19th and 20th century American poets, students trace the great falling away of the standard of written literature and begin to fully discern the redemptive path needful for America. In addition to regular tests, this course includes weekly writing instruction, bi-weekly vocabulary quizzes, and written essays at least four times per quarter. The Senior Thesis Project is adjunct to this academic course.

Honors American Literature II**1 Credit; Thesis Project 0.25 Credit**

The span of this course parallels American Literature II with the addition of mid to late 20th century literature. However, the Socratic Method is enhanced and students are asked to read and respond at a deeper level of scholarship. Regular Socratic Seminars and the speeches of America's greatest statesmen provide students the opportunity to hone the skills of rhetoric, while American poets of the 19th and 20th century offer students an opportunity to challenge the tenets of modernism and postmodernism from a biblical worldview. Students in this honors-level course are required to participate in an outside reading project that entails a thorough presentation. In addition to regular tests, this course includes weekly vocabulary quizzes and weekly writing instruction and assignments. The Senior Thesis Project is adjunct to this academic course.

Prerequisite: Honors English 11; GPA average of 90; Course teacher's recommendation

EGL 1013 English I: Composition: Dual Enrollment English**1 Credit**

This course will hone students' writing skills in academic argument, while using rhetorical styles such as exposition, narration, argumentation, description, etc. Good arguments also pay attention to research, various perspectives, and audience. (Completion of this course will result in 3 college credits from John Brown University.)

Course Objectives: Upon successful completion of this course, student will be able to . . .

- a. **develop** critical reading, writing, listening, and speaking skills
- b. **construct** clear, cohesive, and logical arguments
- c. effectively **analyze** and **evaluate** ideas, arguments, and diverse points of view
- d. **integrate** personal faith with various social issues
- e. **learn** to cite sources through paraphrase, summary, and quotation
- f. **employ** appropriate rhetorical strategies in a writing assignments

Note: This course counts as a general elective and not as one of the required English classes. (This course may not be offered every year, as it depends on student demand for the course.)

Prerequisite: 90 cumulative GPA, 950 SAT (ERW + Math) or 1000 PSAT (ERW + Math), teacher recommendation; final decisions and appeals will be decided upon by JBU administration

History and Geography / Government and Economics

Survey of Ancient, Middle, and Medieval History (Grade 6)

(Ancient History-Creation to Medieval History A.D. 33-1500) Students study history as the record of God's relationship to man from creation onward: it tells us the reasons we are here and our purpose as individuals and nations. Providence, God's Sovereign Hand, is the key to understanding history. Content includes the study of the ten ancient civilizations from Ancient Sumer to Ancient Rome, Middle and Medieval history, their cultures, forms of government and contributions to society. Students are encouraged to see history as His-story. He is the focal point in every civilization.

Survey of Modern History (Grade 7)

(Reformation A.D. 1500's to Present) Students study history as the autobiography of God, the supreme and sovereign ruler of the universe and the author of history who unfolds His plan and purposes through individuals and nations. Content includes the study of the rise and fall of nations, their national character and disposition, their culture and forms of government and the virtues and vices of those who governed from the 16th to the 20th century. Students are also encouraged to explore current national events in relation to a nation's historical background and to write thoughtful essays analyzing all such events from a Biblical worldview.

Nation Makers: The Art of Self-Government (Grade 8)

This course begins with a thorough analysis of the relationship between theology, character and a Biblical philosophy of government and education. The primary text used for this purpose is Noah Webster's *Letters to a Young Gentleman Commencing His Education*. Then students survey the links on the Chain of Christianity with particular emphasis on how the rudimentary Christian principles led to America's Christian founding and the American Christian Republic. A field study tour of Boston, Plymouth, and Lexington culminates these historical and governmental studies.

Ancient Universal History (Grade 9)

1 Credit

This course is designed to provide students with a general understanding of the nature of ideas and their governmental consequences in world civilizations from Creation to Reformation and Enlightenment Europe. The heritage of Western Civilization from an intellectual, institutional and cultural perspective is highlighted. Students learn a framework for understanding and evaluating key individuals, documents and events that have shaped the world through a deepening Biblical worldview of history. Students are challenged to think and confront the nature and significance of monumental events, as well as encouraged to implement this worldview in their personal and civic spheres of influence. Students produce a major research paper in this freshman History course.

Modern Universal History (Grade 10)

1 Credit

This course spans Renaissance and Reformation to the present. Students deduce principles of government from Scripture and then use these principles as an analytical framework for interpreting modern history. Course content includes a contrast of the Biblical worldview against transcendentalism, process philosophy, modernism and post-modernism, and explores the First and Second Great Imperial Struggle, American Expansionism, the American Civil War, the Great Depression, World Wars I and II, the Cold War, the fall of the Soviet Empire, and culminates with the European Union. The Portfolio Project is included in this course as well.

American Government and Economics

1 Credit

Students learn the founding principles of American government through a three-part structure focused on reading original documents: (I) Foundational philosophy from the Hebrew Republic to John Locke; (II) Historical development of freedom in the west from the *Magna Charta* to the United States Constitution; (III) Understanding of the Constitution through *The Federalist Papers* and principles and applications in United States government. Students also learn the fundamental economic principles and how a free society requires a free enterprise market. (This course is offered on alternating years.)

AP U.S. Government and Politics

1 ½ Credits

Please refer to the course description above of American Government and Economics. This enhanced course version equips students with the skills necessary to prepare for the subject-specific advanced placement test offered in the spring of each school year. **Note: This course requires one full block during the first semester and a half block during the second semester.** (This course is offered on alternating years.)

Prerequisite: GPA average of 93; a score of at least 500 on the ERW portion of the PSAT/SAT is recommended; Course teacher's recommendation

U.S. History

1 Credit

The objective of this course is to provide the student with a general knowledge of American history, noting God's providential hand in major events, and the causes and effects of man's actions in the formation and life of the United States. The course content focuses on four major eras: (I) Foundational principles and God's providence in establishing this nation; (II) Political erosion and how republican ideals were surrendered, leading to a geographic split; (III) Philosophical erosion and how progressive ideas led to a split from founding principles; (IV) Cultural erosion of our society as a result of policies and ideas not rooted in the original, firm Biblical principles. (This course is offered on alternating years.)

AP U.S. History

1 ½ Credits

Please refer to the course description above of U.S. History. This enhanced course version equips students with the skills necessary to prepare for the subject-specific advanced placement test offered in the spring of each school year. (This course is offered on alternating years.) **Note: This course requires one full block during the first semester and a half block during the second semester.**

Prerequisite: GPA average of 93; a score of at least 500 on the ERW portion of the PSAT/SAT is recommended; Course teacher's recommendation

Department of Mathematics and Sciences

The chief aim of all investigations of the external world should be to discover the rational order and harmony which has been imposed on it by God and which He revealed to us in the language of mathematics.

Johannes Kepler

For since the creation of the world God's invisible qualities—his eternal power and divine nature—have been clearly seen, being understood from what has been made.

Romans 1:20

A Vision for Students through Mathematics

At StoneBridge School we share this vision with the National Council of Teachers of Mathematics as an expression of excellence in a Principle Approach mathematics program.

“Imagine a classroom, a school, or a school district where all students have access to high-quality, engaging mathematics instruction. There are ambitious expectations for all, with accommodation for those that need it. Knowledgeable teachers have adequate resources to support their work and are continually growing as professionals.

The curriculum is mathematically rich, offering student opportunities to learn important mathematical concepts and procedures with understanding. Technology is an essential component of the environment. Students confidently engage in complex mathematical tasks chosen carefully by teachers. They draw on knowledge from a wide variety of mathematical topics, sometimes approaching the same problems from different mathematical perspectives or representing the mathematics in different ways until they find methods that enable them to make progress.

Teachers help students make, refine, and explore conjectures on the basis of evidence and use a variety of reasoning and proof techniques to confirm or disprove those conjectures. Students are flexible and resourceful problem solvers. Alone or in groups and with access to technology, they work productively and reflectively, with the skilled guidance of their teachers.

Orally and in writing, students communicate their ideas and results effectively. They value mathematics and engage actively in learning it¹.”

¹ National Council of Teachers of Mathematics Principles and Standards, p. 3.

A Vision for Students through Sciences

The StoneBridge science curriculum is designed to provide students with a solid understanding and appreciation of the life and physical sciences recognizing God as the Creator and Sustainer of the universe. Each science course develops observation, analytical reasoning, and research skills through inquiry and regular lab work. In the seventh grade, students investigate the elementary principles relating to life science and biology. Eighth graders are given a comprehensive overview of geological sciences including both earth and space science. In the tenth grade physical science course, students participate in a study of the principles of physics. Establishing the foundations of chemistry and physics provides the introduction to concepts that prepare students for the later study of chemistry. Additional upper school science courses include high school Earth Science, Biology, Human Anatomy and Physiology, and Honors Physics. Throughout the student's high school science curriculum, critical reasoning and laboratory proficiency is fostered while building a firm foundation of scientific understanding within a Biblical context.

Purpose for Studies in Mathematics and Science

- *To help the students become closer to and grow more in love with our Creator.*

The study of mathematics and science leads us to our Creator. Dr. Mark Fakkema said it well when he said, "Mathematics proclaims that God is unchangeable, ...that God is a God of order, ...that God is a God of precision, ...that dependability is one of God's attributes, ...that God's infinitude is perhaps more clearly revealed in Mathematics than in any other school subject." Our instruction is designed to lead students to God and His principles and to encourage their Christian character in His image through the study of mathematics and physical and life sciences. We employ the Biblical, Principle Approach using the Notebook Method and reflective thinking by placing the Word of God at the center of our mathematical and scientific thinking and reasoning. **We emphasize the demonstration of principles, the meanings of the vocabulary of the subject, and the organization and mental effort necessary for each student to master subject principles and technical skills and operations.**

- *To help students become precise thinkers and to enable them to capably reason from cause to effect in real life problem situations.*

Dr. William Bennett said, "Well-taught, math is a thing of beauty, exciting in its logic, elegance, and coherence. Math is also a vital component of a good education. In part, the study of math is the study of problems and solutions. It builds the analytical spirit and the deductive capacity on which intelligent thought depends. And it teaches students the value of precise thinking." We strive to stretch the students' minds by training them to think and reason well.

- *To enable students to be able to use mathematics and apply science in everyday life and in the workplace.*

The need for mathematics and scientific knowledge in today's changing world has never been greater. As technology continues to increase and the need for math competence and scientific knowledge in many career fields grows. We recognize that mathematics and science plays a vital role in our world today and we endeavor to prepare our students for the challenges that they will face in that realm. **The preparation that our students receive in mathematics and science is critical for their role in becoming our nation's future leaders and in fulfilling God's cultural mandate for their lives as American Christians.**

Description of Courses

Mathematics

Note: Each student is placed in a mathematics course each year by using the results of diagnostic placement testing on specific content mastery, standardized testing, his/her grades in the current year math course, his/her maturity level, and teacher recommendations.

Intermediate Math 1

This course contains content to review basic arithmetic and other mathematical skills and concepts learned in previous math courses. It begins to prepare students for more abstract concepts in algebra and geometry. It is also designed to help students learn to apply concepts to real life situations. **Topics include:** Operations with fractions and decimals, operations with integers, solving simple equations, ratio, proportion and percent, and some graphs and statistics.

Prerequisite: Fifth grade mathematics or the equivalent

Intermediate Math 2

This course of study contains content to review and further develop skills learned in Math 1 as well as new content that prepares students for more abstract concepts in algebra and geometry. The course is designed to help students understand concepts leading to higher mathematics and to help them learn to apply those concepts to problem solving in real life situations. **Topics include:** Decimal patterns, statistics and analyzing data, review of integers, linear equations and functions, applying fractions, decimals, percents, ratio, proportion, probability and geometry.

Prerequisite: Math 1 or the equivalent

Pre-Algebra

This course of study contains content to review and further develop skills learned in Math 1 and 2 as well as new content that prepares students for more abstract concepts in algebra and geometry. The course is designed to help students prepare for the rigors of high school Algebra I and Geometry. Students will learn to apply new concepts learned to problem solving in real life situations. **Topics include:** Mastery of operations with integers and rational numbers, ratios, proportions, percents, solving equations with variables on both sides, inequalities, review of simple equations and inequalities, linear functions, slope, writing linear equations, graphing, applying algebra to geometry, two-and three-dimensional figures, polynomials and non-linear functions, and probability and statistics.

Prerequisite: Math 2 or the equivalent

Algebra I

1 Credit

This course covers all of the topics of high school Algebra I and demands full mastery of arithmetic and pre-algebra skills and concepts. It builds the foundation for all of the higher math courses and helps students learn to reason and problem solve. **Topics include:** Real numbers and the language of Algebra, solving and graphing linear functions, solving systems of linear equations, solving and graphing inequalities, operations with polynomials, solving quadratic and exponential functions, radical and rational expressions and equations, and probability and statistics.

Prerequisite: Pre-Algebra or the equivalent

Geometry

1 Credit

This course covers the standard geometry skills and concepts. Students master the key aspects of measuring, reasoning and applying geometrical ideas and brings math to life with many real-world applications. Students develop powers of spatial visualization and learn the value of clarity and precise language in mathematics. **Topics include:** Angle relationships, reasoning and proofs, parallel and perpendicular lines, congruent triangles, properties of triangles, quadrilaterals, transformations, similar triangles, right triangles and trigonometric ratios, circles and area and volume of various figures.

Prerequisite: Algebra I

Algebra II

1 Credit

This course is designed to build and expand upon algebraic concepts introduced in Algebra I. This course is not intended to be a thorough treatment of Algebra II and trigonometric concepts necessary for advanced calculus classes. **Topics include:** Solving linear equations and inequalities, solving systems of equations, polynomials, quadratic functions and inequalities, rational expressions and equations, and exponential and logarithmic relations.

Prerequisite: Algebra I; a score of at least 400 on the mathematics portion of the PSAT is recommended

Honors Algebra II/Trigonometry

1 Credit

This course is designed to build and expand upon algebraic concepts introduced in Algebra I. It is an intensive, accelerated course intended for the accomplished student with proven motivation to prepare for advanced mathematical courses. A thorough treatment of advanced algebraic concepts is provided. This course is designed for students interested in pursuing careers or fields of study in math, science, engineering or technologies. **Topics include:** Solving linear equations and inequalities, solving systems of equations, polynomials, quadratic functions and inequalities, conic sections, rational expressions and equations, exponential and logarithmic equations, sequences and series, and trigonometric functions.

Prerequisite: Algebra I with at least a 93 average; a score of at least 500 on the mathematics portion of the PSAT is recommended

Pre-Calculus

1 Credit

This course completes the formal study of the elementary functions begun in Algebra I and continued in Algebra II. Together with Trigonometry, this course can lead to Calculus for students interested in further exploration of mathematical topics. **Topics include:** Polynomial, rational, exponential, and logarithmic functions, systems of equations and inequalities, matrices, conic sections, vectors, sequences and series.

Prerequisite: Algebra II with at least an 80 average; a score of at least 500 on the mathematics portion of the PSAT is recommended

Honors Pre-Calculus**1 Credit**

This course completes the formal study of the elementary functions begun in Algebra I and continued in Honors Algebra II. It is designed to prepare motivated and accomplished math students for Calculus and then for AP Calculus. **Topics include:** Polynomial, rational, exponential, and logarithmic functions, matrices, and trigonometric functions, inverses, equations, graphs and identities.

Prerequisite: Honors Algebra II with at least a 93 average; a score of at least 550 on the mathematics portion of the PSAT is recommended

Honors Calculus**1 Credit**

This course is designed to act as an introduction to the study of calculus at the high school level. It is designed to provide a basic understanding of the important underlying principles of Calculus which allows for many practical applications, as well as preparation for AP Calculus.

Topics include: Functions, limits of functions, derivatives, computation of derivatives, applications of derivatives, definite integrals, anti-derivatives, and applications of integration.

Prerequisite: Honors Pre-calculus with at least a 93 average; a score of at least 550 on the mathematics portion of the PSAT is recommended; recommendation from Honors Pre-calculus teacher

AP Calculus AB**1 Credit**

This course is designed to be a functional equivalent of the first Calculus sequence at the college level. Students who successfully complete this course will be prepared to take the Advanced Placement (AP) Calculus exam at the end of the school year.

Topics include: Function analysis, limits of functions, continuity of functions, the derivative as a concept, algebraic rules for finding derivatives, applications of differentiation (rate of change, optimization, curve analysis, etc), integrals as Riemann sums, evaluation of integrals, Fundamental Theorem of Calculus, anti-derivatives, applications of anti-derivatives/integrals.

Prerequisites: Honors Calculus with at least a 93 average; a score of at least 550 on the mathematics portion of the PSAT/SAT is recommended; recommendation from Calculus teacher

Statistics**1 Credit**

This course will introduce students to concepts and tools that will enable them to collect, analyze, and interpret data. **Topics include:** Exploring data, sampling and experimentation, anticipating patterns, and drawing statistical inferences.

Prerequisite: Algebra 2

Physical and Life Sciences**General Science (Grade 6)**

Throughout the course of the year, the students will be able to identify and study various branches of science. God's intricate design and handiwork are observed in our study of earthquakes and volcanoes, cells and organisms, Botany, Zoology, atoms and molecules, astronomy, heredity and genetics, the nervous system, and the immune system. Key individuals who have made contributions to the field of science are observed. Projects and lab exercises in the classroom will enhance our study and continue to foster the love of learning more about God's marvelous creation.

Life Science (Grade 7)

This course builds upon the foundation that has been laid during the elementary and sixth grade years regarding the life sciences. Students are presented with a Biblical worldview throughout the course and encouraged to reason through the lens of Scripture as they investigate God's living creation. Students study the basics of life, genetics, microbiology, botany, zoology, ecology, and human anatomy over the course of the year. These topics will be developed in more depth in the high school biology course.

Earth Science (Grade 8)

This course is an interactive study of the earth's structure, dynamics and place in God's creation. We will focus on astronomy, geology, oceanography, and meteorology. Through the use of research, experimentation and critical reasoning, students will understand how all parts of God's creation work together as an extraordinarily complex and carefully integrated whole that is perfectly suited to His purposes. We will also examine the history of each subject and the key individuals God uses to accomplish His work on earth.

Biology**1 Credit**

This course lays a Biblical, historical and scientific foundation for the study of life beginning with the macroscopic and ending with the microscopic. Students examine issues related to the origin and development of life as they study botany, zoology, microbiology, ecology, biochemistry, cytology and genetics. Focus is also placed on the implementation of the scientific process by utilizing laboratory and classroom activities. Ultimately, students grow in their knowledge of biology in order to take dominion over creation and steward it for His glory.

Honors Biology**1 Credit**

Proven science students may enroll in Honors Biology, an accelerated course that allows motivated students to cover biology course content in more depth and detail. Through critical reading, research, projects, and experimentation, students study the kingdoms of life, ecology, biochemical processes, cellular organization and physiology, mechanisms of inheritance, and biotechnology. Issues of life's origin and development are critiqued from a Biblical and scientific perspective.

Prerequisite: Most recent Science course with a 90 average; ERW score of 450 on PSAT is recommended; recommendation from the previous science teacher

Physical Science**1 Credit**

This course thoroughly establishes the foundations of physics through lecture, readings, investigations, and labs. Students learn the basic principles of physics: speed and acceleration, forces and motion, simple machines, work and energy, electricity and magnetism, sound and waves, light and color and optics. The course advances student's ability to think critically and apply the scientific method.

Chemistry**1 Credit**

This course features critical reading, problem solving, experimentation and data analysis to develop the student's understanding of the principles of chemistry. Students develop an understanding of phenomena at the molecular level as they explore the interactions and relationships between atoms and molecules that account for chemical changes. This course presumes that students have solid algebra skills as chemistry employs advanced math applications.

Prerequisite: Algebra I, Physical Science and/or Biology with at least a 80 average in all courses **Co-requisite:** Algebra II or above recommended

Honors Chemistry**1 Credit**

Honors Chemistry is distinguished from Chemistry in the level of independent study, the depth of algebraic and mathematical applications, as well as the rapid pace. Students who enroll in honors and AP level courses must understand these courses require additional commitment to studies beyond the school day and beyond the framework of the homework and test schedule. This course is designed for students pursuing an advanced studies diploma and a college major in math, engineering, or sciences.

Prerequisite: Completed Algebra II with a 90 average or currently taking Honors Algebra II; a score of at least 500 on the mathematics portion of the PSAT/SAT is recommended; recommendation from the previous science and math teachers

Human Anatomy and Physiology**1 Credit**

Students study the structure and processes of the human body using a systems approach. Analysis of each body system is accomplished by lecture, research, group interaction, case studies and labs. As students study God's magnificent works, analogies are made between the inner-workings of the human body and many spiritual realities providing students with captivating insights into the Body of Christ.

Prerequisite: Biology with an 80 average

High School Earth Science**1 Credit**

This course will be an in-depth exploration of the earth and its processes. Students conduct in-depth studies of plate tectonics, earthquakes, and volcanoes. They will also learn to identify the three types of rock and be able to determine names and compositions of examples in each category. During the course, students will research Noah's flood from the book of Genesis and will learn how the flood changed the face of the earth and set in motion many of the natural processes we study today. (This course may not be offered every year, as it depends on student demand for the course.)

Honors Physics**1 Credit**

This course is based on an analytical investigation of the basic principles of Newtonian mechanics utilizing descriptive techniques and formulas to develop an intuitive and analytical understanding of the concepts of speed, velocity, acceleration, force, momentum, energy, rotational motion and harmonic motion. The student's

understanding of these phenomena is enhanced by laboratory work using calculators and computers interfaced with a variety of sensors. (This course may not be offered every year, as it depends on student demand for the course.)

Prerequisite: Honors Algebra II with a 93 average; SAT math score of 550; recommendation from the previous science teacher

Department of Arts and Languages

*Great are the works of the LORD; They are studied by all who delight in them. Splendid and majestic is His work,
And His righteousness endures forever. He has made His wonders to be remembered!*

Psalms 111:1-4

*Finally, brethren, whatsoever things are true, whatsoever things are honest, whatsoever things are just,
whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report;
if there be any virtue, and if there be any praise, think on these things.*

Philippians 4:8

A Vision for Students through Arts and Languages

The mission statement of StoneBridge School to restore the Christian character of the Republic through a classical American Christian education is beautifully displayed within the Department of Arts and Languages. While the department remains interconnected in subject material and methodology to the teaching and learning of the other departments in educating the whole child, it is also uniquely poised to both tutor and inspire the individual to reach the fullest expression of his value in Christ. The study of music, art, and drama from a Principle Approach®, not only elevates the purposes and intent of the Creator but it also serves to satiate the soul's need to outwardly express the high knowledge of these truths to the praise and glory of God. Through the study of the classical languages, students develop an understanding of the guiding principles of grammar which serves to scaffold all other learning. Students who grasp the organizing principles of linguistics are able to think, articulate and write superiorly. The learning of the Modern Languages further polishes and refines the skills of communication within the StoneBridge student as they prepare to fulfill the Biblical mandate to "teach all nations."

Purpose for Studies in Arts and Languages

Ex veritate Dei, pulchritudo

From God's truth, beauty

The Department of Arts and Languages at StoneBridge Upper School is designed to further refine the aesthetic sensibilities placed within each individual by God and exhibited as the fullest expression of the knowledge of Him as the Source of all truth and beauty. This department continues to sequentially build upon the cultivation years of the Lower School in order to achieve this objective and includes the teaching and learning of the Fine and Performing Arts and Modern Languages.

Description of Courses

Fine Arts

Art I: Foundations of Color and Design

1/2 Credit per semester

The purpose of this introductory course is to develop the student's understanding and means of expression through the sequential learning of color theory and the elements of design. Students are introduced to the basic elements of design (line, shape, texture, value, color, form and space) according to the principles of design (unity, proportion, balance, rhythm, emphasis, pattern, contrast and movement). This is accomplished through exposure to several different mediums and tools used in both 2D and 3D artwork. Each student produces works detailing their understanding of and progress in mastery of basic skills as seen in self-portrait, detailed line drawing, and color mixing of paint and other color media. Other projects include slab work in clay, the still life in its several forms and a master's study exploring a selected artist which serves to reinforce the classical style of learning and solidifies the

study of art from a Biblical perspective. Class time is divided between lecture and studio time, with the latter comprising the bulk of the class.

Art II: Technique and Design Development

1/2 Credit per semester

This class is designed to build and expand upon the precepts taught in the Foundations course as the students improve and advance in their demonstrated understanding of color theory and the elements of design. New design elements and techniques are introduced and developed for increasing mastery in drawing, painting, printmaking and sculpture. Students are encouraged to express and develop their own ideas as they begin to create and amass the body of work necessary for further art study and/or employment. Students increase their abilities to judge and critique art work as they engage in further practice of these skills. Study becomes more independent as students individually steward their time and resources for each project.

Prerequisite: Foundations of Color and Design

Art III: Communication through the Visual Arts

1/2 Credit per semester

This course is designed for the student who has shown mastery of the skills, techniques and theories as presented in the Foundation and Techniques courses. Building upon the skill sets of these two classes, the student applies his refined skills to the design elements and techniques to be used in the following projects: drawing, painting, monotype, textiles, sculpture, lampworking and applied art. Students continue to employ the classical style of learning by reproducing masters' studies and then are encouraged to apply those same skills to their own original work. Nearing the completion of their formal education, students explore viable options for advanced education and/or employment in the art world and learn how to present and market their work using the expanded and refined portfolio. A high level of independent work is expected of each student as there may be several different assignments. (This course may not be offered every year, as it depends on student demand for the course.)

Prerequisite: Technique and Design Development

Honors Art IV: Advanced Art Theory and Applications

1/2 Credit per semester

This class is designed for the student who has demonstrated mastery of the skills, techniques and theories as presented in the first three levels of art and to be the foundational course for AP Studio Art and/or college level coursework. The Advanced Art class is an independent study tasking the student to work closely with the teacher to develop his own production strategy within his area of concentration that meets the written criteria for AP Studio Art. (This course may not be offered every year, as it depends on student demand for the course.)

Prerequisite: Communication through the Visual Arts; recommendation from the art teacher

Performing Arts

Drama I: Theatre Production

½ Credit

The course offers students the opportunity to experience different facets of theatre production. It focuses primarily on preparing students for their individual roles in the theatre department's major production in March (typically a musical). Students gain hands-on experience performing in a theatre production. Acceptance into the class is competitive (audition-based) and based on commitment, talent, previous experience, and seniority.

Prerequisites: Audition required; must be able to meet during zero bell and Thursday afternoons and must meet all final rehearsal and performance time requirements; grades 9-12 receive credit; grades 6-8 may participate pending on show

NOTE: This class will meet during Zero Bell (7-8am), and on many Thursday afternoons

Drama II: Acting Workshop and Production

½ Credit*

Students enrolled in this course focus on learning the skills and techniques of acting through acting workshops and a minor production. Students will explore character development, basic acting methods, improvisation, and vocal and physical projection. Depending on the play/performance selected, students also gain experience in pantomime, accents, physical comedy, basic unarmed stage combat, dance, and musical numbers. There is no prerequisite for the class; however, to provide ample workshop time for each student, the class size is typically limited based on the selected production.

Prerequisites: Audition required; must be able to meet during zero bell and Thursday afternoons; grades 9-12 receive credit; grades 6-8 may participate pending on show

NOTE: This class will meet during Zero Bell (7-8am), and on many Thursday afternoons

***Not offered in 2018-2019**

Drama III: Production Team**1 Credit**

The course offers students the opportunity to experience different facets of theatre production with increased responsibility. It focuses primarily on preparing students for their individual roles in the theatre department's major production in March (typically a musical). Students gain hands-on experience in one of many specialized theatre positions: actor/actress, assistant stage manager, costume manager, and other roles. Those cast in principal roles, and those who take on an additional crew position are enrolled automatically in this course. As there are a limited number of cast/crew positions available based on production requirements, acceptance into the class is competitive and based on commitment, talent, previous experience and seniority.

Prerequisites: Audition required; must be able to meet during zero bell and Thursday afternoons; grades 9-12 ONLY

NOTE: This class will meet during Zero Bell (7-8am), and on many Thursday afternoons

Drama IV: Film**½ Credit**

Students enrolled in this course focus on learning the skills and techniques of producing their own amateur films. This course is primarily independent / group work, and not a regularly scheduled class. Those enrolled will have a brief crash course on acting, film, and performing arts. They also may opt to take a series of workshops to better improve their skills. They will independently or in groups propose a short film project, which they will write, direct, film, edit, and produce for a culminating film festival at the end of the semester. There is no prerequisite for the class and middle school students may participate, however projects must be lead by a high school student, and students must understand that success requires excellent time management and personal responsibility. Each group must have access to an iMac or MacBook with iMovie, and an iPhone 6 or better to film OR a quality camera.

Prerequisites: Sign up and submit film group and a project plan; grades 9-12 receive credit; grades 6-8 may participate on a team lead by a student in grades 9-12

NOTE: This class will meet during Zero Bell (7-8am) for several weeks at the beginning of the semester, and then private check-points will be arranged with the instructor throughout the semester

Honors Drama: Stage Management**1 Credit**

[Limited to one stage manager per production.] This exclusive course is for strong leaders who are willing to take on greater responsibility for the StoneBridge Drama productions. The student will learn about stage management through practical hands-on application. They will assist the director at all rehearsals in a variety of ways, including leading rehearsals, communicating with the cast, organizing show/cast needs, running sound, coordinating volunteers to help with production needs, and other needs as they arise for the specific show at hand.

Prerequisites: 1 semester assistant stage managing, or director-approved stage management experience; grades 9-12 ONLY; priority given based on experience and seniority

NOTE: This class will meet during Zero Bell (7-8am), and on many Thursday afternoons

Advanced Chorus (9-12th)**1/2 Credit per semester**

This course provides opportunities for students to develop their musical potential and aesthetic understanding through singing in a choral ensemble. Students learn music theory, reading, rhythms, clefs and key signatures, solfeggio, and the building of technical skills, team spirit and responsible rehearsal habits necessary for excellence in musical worship. Students strengthen listening skills and their ability to analyze and evaluate music and music performances. Students also relate their music experiences to personal development. This class is designed for those motivated students interested in performance. Performance at school concerts is required.

Prerequisite: None

Modern Languages**French I****1 Credit**

This course is an introduction to the foundational elements of the French language. Students will learn the basics of reading and writing in French through thematic vocabulary, beginning grammar and exercises in elementary reading and writing through thematic studies of the typical life of a student: school, family and leisure activities. Both speaking and listening skills are developed and practiced through participation in actual student dialogues via role playing and recordings. Students explore the cultural differences between French speaking countries and the United States as well as gaining a glimpse of the providential history that shaped France.

Prerequisite: None

French II**1 Credit**

Building upon the foundations of French I, French II is designed to increase the student's competence in the four language skills and further augment the vocabulary, verb tenses and grammar constructs of the level one course. Students improve in their ability to read and comprehend material of increasing levels of difficulty and write

accurately within the scope of their acquired level of learning. The overall theme for level II is travel; students take an historical journey through French literature while they continue to build upon their knowledge of French history and culture as studied from a Biblical worldview.

Prerequisite: French I

French III

1 Credit

French III continues to refine the student's acquired skills with added emphasis on speaking articulately on a wide range of topics, writing proficiently using many advanced grammar constructs, and using French expressions. Students interact with an increasing collection of literature striving for comprehension and mastery in communication. This course emphasizes the development of cultural awareness through history, geography and active participation in many types of activities as well as cultivation of the expression of a Biblical worldview through Scriptures from *La Sainte Bible*. Students present a famous historical French person as a final project.

Prerequisite: French II

French IV

1 Credit

This is an advanced language course that is conducted in French from teacher lecture to student conversation and requires that students participate and converse in French. Students further their command of the language through audio, video, textual and traditional lecture-style learning. Students study conjugation of all tenses of regular and irregular verbs and all grammar constructs. Students read the abridged version of Victor Hugo's *Notre Dame de Paris* as mastery of translation and comprehension is demonstrated. History is studied through literature with increased emphasis on essay and oral discussion. (This course may not be offered every year, as it depends on student demand for the course.)

Prerequisite: French III and a recommendation from the Level III teacher

Spanish I

1 Credit

Spanish I introduces the students to the distinctiveness of the Spanish language, the diversity of the Hispanic cultures and God's purposes for the Spanish-speaking nations. The students begin to develop the four language skills of listening, speaking, reading and writing in real-life contexts. Communication skills are enhanced by conversations with native Spanish speakers as students cultivate the richness of the spoken language.

Prerequisite: None

Spanish II

1 Credit

All aspects of grammar and vocabulary taught in Spanish I are reinforced and expanded upon in the second year. Application of grammar rules and learned vocabulary is accomplished by increased emphasis on conversation through oral exchange about real-life contexts. Students begin to express their own ideas through writing while increasing their understanding of Hispanic culture from a Biblical worldview. Students are exposed to a variety of reading strategies that increase their level of mastery and comprehension.

Prerequisite: Spanish I

Spanish III

1 Credit

Building upon the first two levels of Spanish, this course emphasizes greater fluency in reading, writing, speaking and listening. Students increase their vocabulary and master basic grammatical structures so that writing becomes more proficient and articulate. Creativity in expression is emphasized through journaling thoughts and prayers in Spanish and through drama. The appreciation of the contributions, values and significance of the culture of Spain and Latin America is studied and researched through a variety of written material as well as *La Santa Biblia*.

Prerequisite: Spanish II

Spanish IV

1 Credit

This is an advanced level course with emphasis on the refinement of the language skills of listening, speaking, reading and writing through audio, video, textual and traditional lecture-style learning. Classroom procedure is more informal and personal, requires more intensive individual and at-home study and will involve more interaction with available local cultural activities. Students master grammatical and conversational skills. Students read more advanced novels, poetry and short stories in Spanish and will be able to exact critical compositions. There is an increased emphasis on evangelism by sharing personal testimonies and the gospel in Spanish to non-Christian native speakers. (This course may not be offered every year, as it depends on student demand for the course.)

Prerequisite: Spanish III and a recommendation from the Level III teacher

Physical Education*

Physical Education 6, 7 and 8

These courses promote the development of Christian character in the areas of sportsmanship, servanthood, leadership and stewardship. The secondary emphasis is to further develop flexibility, core strength, speed, endurance, balance and agility. This program, coupled with specific skill acquisition, helps to ensure proper preparation for participation in StoneBridge team sports. **Specific sports include:** soccer, field hockey, basketball, volleyball, lacrosse, softball for girls and baseball for boys, and track and field. In addition, recreational sports studied include: badminton, flag football, ultimate frisbee, dodgeball, kickball and 4-corner soccer. All students are required to participate in the Fitness Testing Program in the fall and spring.

***Physical Education graduation credits** are earned through participation in StoneBridge School team sports (1 sport's season = 1 credit). These credits are posted as Pass/Fail and do not factor in the GPA.

Middle School Electives

*These courses may not be offered every semester/year.

Art (6-8th)

The goal of art in the middle school curriculum is to build on the students' knowledge of God's elements of design (value, color, space, shape, line, texture) and techniques of production on the foundation already laid. This can be done by developing the knowledge of God's character in Creation through the visual arts. The biblical principle of art will be taught to build Christian character through their applied use. A love of art history will be instilled by looking at the visual record of the Gospel, through a study of the individual lives of master artists, using the Christian timeline. Each child's God-given talent will be used to produce visual art for the glory of God. Students will develop a lifetime habit of good stewardship of time, talent, and tools. Observation and problem solving skills will be sharpened. A wide variety of art media will be explored with an emphasis on the fine arts. Projects will consist of basics of sketching and drawing using pencils and charcoals, basics of color and value in pastel and painting, hand-built clay pieces fired in a kiln, printing, and mixed media. Each student will enter one piece of artwork in the spring art show held at Stonebridge School.

Chorus (6-8th)

This course provides opportunities for students to deepen their understanding of God as "Creator" and "Communicator." Students in Middle School Chorus sing in unison, two, and three-part harmonies as they prepare repertoire for semester-culminating performances. The students learn music theory, including reading rhythms, clefs, and key signatures, and solfeggio. Students also apply vocal pedagogy, study music history, and explore music from around the world. Students practice team-spirit and building confidence by rooting their identity in Christ. This class is designed for those motivated students interested in musical performance. Performance at school concerts is required.

Computer Enrichment (6-8th)

This class will introduce students to engaging and interactive web based applications designed to expand their I.T. proficiency.

Computer Fundamentals (6-7th)

This course is designed to introduce students to the variety of technology tools available in their own school. Students will make text documents, create drawings, import their drawings into documents, use clip art files and Internet images, build a spreadsheet for data collection and create charts and graphs from that data, use electronic resources and the Internet, practice proper keyboarding techniques, and explore a variety of software applications. This class will cover basic hardware and software operations and help students learn to use the technology tools in their classes.

Conversational French (6-7th)

Conversational French will introduce students to the French language and culture through fun and engaging activities.

Conversational Spanish (6-7th)

Conversational Spanish will introduce students to the Spanish language and culture through fun and engaging activities.

Geography (Grade 8)

This class is an enrichment course that studies continents, major physical landmarks of the continents, countries and capitals within each continent, ethnic groups, cultures, languages and dialects, and major historical events that shaped geographical areas.

Math Enrichment (6-7th)

Math Enrichment will help to solidify and reinforce foundational math principles as well as provide opportunities for students to “think outside the box”.

High School Electives

*These courses may not be offered every semester/year.

Introduction to Computer Programming

1/2 Credit

This course will cover the basic information, yet be an intense introduction to programming using Python for highly motivated students with little or no prior experience in programming. The course will focus on planning and organizing programs, as well as the grammar of the Python programming language.

Introduction to Philosophy

1/2 Credit

Through this course, students will survey the development of Western Philosophy from ancient Greece to the contemporary world. This study will focus on the particular contributions of key individuals, such as Plato, Aristotle, Augustine, Aquinas, Descartes, Hume, Kant, and Nietzsche, among others. Each major thinker will be analyzed from a distinctly Biblical worldview with confidence that “all the treasures of wisdom and knowledge” are hidden in Christ (Col. 2:3). The purpose of this course is to advance a consistently Christian worldview, develop critical reasoning skills, and to promote a greater understanding of the intellectual world in which we live, thereby preparing students to give a defense for the hope that is in them (1 Pet. 3:15) and to “destroy arguments and every lofty opinion raised against the knowledge of God” (2 Cor. 10:5) for the glory of God and good of neighbor.

Logic and Rhetoric

1/2 Credit

This course is designed to extend students’ understanding and articulation of truth from a Biblical worldview with logical coherence and winsome rhetoric. Students will learn to construct logical arguments, discern logical fallacies, and communicate truth with the tools of effective rhetoric. The goals of this course will be achieved through practice in formal logic, analysis of written and oral arguments, persuasive writing, oral presentations, and in-class debates.

Personal Finance

1/2 Credit

This course teaches financial literacy from a Biblical perspective. Students are taught using a variety of methods to learn the basics in managing money, various investment options, credit and debt, financial responsibility, insurance, real estate and mortgages, and taxes. Lessons are taught to help students understand how managing their money now will reap great benefits later.

Personal Fitness

1/2 Credit

This course is designed for the student who desires to excel in athletics by developing the discipline of personal fitness. Each student is placed on an individualized program that will enhance his or her specific sports training during each season. Careful considerations are made to coordinate the training techniques offered in the class with the athlete’s chosen team sport. The use of dumbbells, stretch bands, weight-lifting machines, plyometric drills and advanced core exercises are used to promote the development of small and large muscle groups and to enhance overall strength. In addition to strength training, stretching, proper posture, balancing, and core training, the importance of proper nutrition is discussed. This course does not meet the graduation credit requirements for physical education; it is a general elective only. (This course may not be offered every year, as it depends on student demand for the course.)

Prerequisites: Teacher approval and sports physical

Robotics, Part 1

1/2 Credit

In this course, students take on the roles of mechanical engineers, computer scientists and electrical engineers. Students research dynamics, kinematics, sensors, and general engineering practices. Subjects such as motion planning and obstacle avoidance, velocity and acceleration, serial chain mechanisms, pneumatic actuators, torque, and drive circuits are covered. Students put knowledge into practice through lab settings where robots are created with teams.

Robotics, Part 2**1/2 Credit**

Students will continue to build and expand on the principles and concepts learned in Robotics, Part 1.

Prerequisite: Successful completion of Robotics, Part 1

Teaching Assistant**1/2 Credit**

This course gives practical experience in working with elementary students by observing a teacher each day and helping him or her in various ways. Students will also produce a lesson plan chosen in conjunction with the supervising teacher that will be taught to the children in the class. Note: This course is graded on a pass/fail basis and will not be included in the GPA. Successful completion of the course is dependent upon the supervising teacher's evaluation. It will be counted as a general elective.

Limited Class Size: Limited to 12 students; preference given to upperclassmen with an interest in the teaching profession

Yearbook**1/2 Credit per semester**

Students in this course will comprise the yearbook staff and produce a final yearbook for the entire school. The yearbook staff will learn and practice journalism writing and production skills as they produce the yearbook.

Advertising sales, design and book promotion will also be emphasized.