



2025-2026
Grace School

SENIOR HIGH SCHOOL
CURRICULUM GUIDE

BIBLE

Graduation Requirements: Enrolled in a Bible Course every Semester

BIB109: EARLY HEBREW HISTORY

UC APPROVED: “g” Elective

GRADE LEVEL AT WHICH COURSE IS OFFERED: 9th grade

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: A survey of each book of the Old Testament will be undertaken. Students will learn the theme for each book, the major figures and the geography of the Old Testament. In the process they will discuss how God revealed Himself to men, how the Israelites fared in their relationship with God, and how individual men and women lived in relationship with God.

BIB110: NEW TESTAMENT SURVEY

GRADE LEVEL AT WHICH COURSE IS OFFERED: 10th grade

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: The year begins with a study of the synoptic Gospels and Jesus’ discourse at the Last Supper in the book of John. While studying Romans, a theological platform will be built which will frame the examination of the rest of the New Testament. Students will survey early church history in Acts and learn the location and background of the key cities of the Epistles they will be studying. Students will be encouraged to apply biblical truths that are reiterated throughout Paul’s writings as well as those of the other New Testament authors.

BIB111: FOUNDATIONS OF CHRISTIAN THOUGHT 1

GRADE LEVEL AT WHICH COURSE IS OFFERED: 11th grade

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: Students will have a general understanding of God and His attributes as well as how God reveals Himself in general and special revelation. An emphasis will be placed on arguments for the existence of God and for the reliability of Scripture. After understanding the trustworthiness of Scripture, students will learn how to interpret the Bible the way it was meant to be read. Students will also study God’s special creation, humans. Our students will learn a biblical case as well as a logical case for why human lives are sacred regardless of age, gender or abilities.

BIB112: FOUNDATIONS OF CHRISTIAN THOUGHT 2

GRADE LEVEL AT WHICH COURSE IS OFFERED: 12th grade

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: This course continues the previous year's model and students will discuss spiritual warfare, dating and man's sinfulness. They will then learn who Jesus is as the perfect God-Man and discuss salvation and the many aspects of Jesus' work for us. The responsibility for members of Christ's body to the church will also be highlighted and students will contrast biblical Christianity with other religions.

COMPUTER SCIENCE

COMPED101: COMPUTER GRAPHICS

UC APPROVED: "f" Elective

GRADE LEVEL AT WHICH COURSE IS OFFERED: 9th - 12th grade

PREREQUISITES OR COREQUISITES: Students must be adept at Microsoft applications.

COURSE CONTENT: This course seeks to prepare the student for entrance into a world of visual communication. Students will learn the basics of essential programs that have become the industry standard for design. Adobe's Photoshop and Illustrator will become a tool of communication as they learn to wield their nuances. The course will engage in the production of graphic artwork within the context of its use in the professional environment.

COMPED201AP: AP COMPUTER SCIENCE PRINCIPLES

UC APPROVED: "g" Elective

GRADE LEVEL AT WHICH COURSE IS OFFERED: 9th - 12th grades

PREREQUISITES: C or better in Algebra I

COURSE CONTENT: AP Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. With a unique focus on creative problem solving and real-world applications, working with data, understanding the Internet, cybersecurity, and programming. AP Computer Science Principles prepares students for college and career.

ENGLISH
Graduation Requirements: (4 years)
Expository Composition (1 Semester)
Critical Thinking and Composition (1 Semester)

ENG109: FUNDAMENTALS OF LITERATURE

UC APPROVED: “b” English

GRADE LEVEL AT WHICH THE COURSE IS OFFERED: 9th grade

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: Literature for this class includes the structure of prose and poetry, conflict, characterization, theme and moral, point of view, and drama. The Excellence in Writing program reviews and builds upon the principles of grammar and composition learned in junior high with an emphasis on content. Classes include lessons in literature fundamentals along with vocabulary lessons and various writing assignments.

ENG109H: FUNDAMENTALS OF LITERATURE HONORS

UC APPROVED: “b” English

GRADE LEVEL AT WHICH THE COURSE IS OFFERED: 9th grade

PREREQUISITES OR CO-REQUISITES: B or better in 8th grade Honors English or teacher approval, or an A or better in 8th grade English and teacher/department chair approval. Summer enhancement work is required for this class.

COURSE CONTENT: Class literature includes the structure of prose and poetry, conflict, characterization, theme and moral, point of view, and drama. The Excellence in Writing program builds upon the principles of grammar and composition learned in junior high with an emphasis on content. Students are expected to achieve a mastery of writing on a ninth grade level. Classes include lessons in literature fundamentals along with vocabulary lessons and various writing assignments.

ENG110: AMERICAN LITERATURE

UC APPROVED: “b” English

GRADE LEVEL AT WHICH THE COURSE IS OFFERED: 10th grade

PREREQUISITES OR COREQUISITES: 9th grade English

COURSE CONTENT: This course includes the study of American literature from the 1600s to the 20th century. This survey is studied with an understanding of the times and circumstances of each period as well how each work reflects its author. Elements of prose and poetry learned in the 9th grade are reviewed and used in evaluating each work along with additional literary devices introduced by the text. Classes include lessons on American authors along with vocabulary lessons and various writing assignments.

ENG110H: AMERICAN LITERATURE HONORS

UC APPROVED: “b” English

GRADE LEVEL AT WHICH THE COURSE IS OFFERED: 10th grade

PREREQUISITES OR COREQUISITES: B or better in 9th grade Honors English or teacher approval, or an A or better in 9th grade English and teacher/department chair approval. Summer enhancement work is required for this class.

COURSE CONTENT: This class studies American literature from the 1600s to the 20th century. This survey is studied with an understanding of the times and circumstances of each period as well how each work reflects its author. Elements of prose and poetry learned in the 9th grade are mastered and used in evaluating each work along with additional literary devices introduced by the text. Argumentative writing is introduced and developed. Classes include lessons on American authors along with vocabulary lessons, periodic AP test preparation, and various writing assignments.

ENG112: BRITISH LITERATURE

UC APPROVED: “b” English

GRADE LEVEL AT WHICH THE COURSE IS OFFERED: 11th grade

PREREQUISITES OR COREQUISITES: Completion of American Literature or other 10th grade English class equivalent

COURSE CONTENT: The literature for this class includes the study of British literature from the Anglo Saxon period to the 20th century. This survey is studied with an understanding of the times and circumstances of each period as well how each work reflects its author. The curriculum incorporates literature and vocabulary study into the development of writing skills as well as incorporating formal grammar and composition as a means of developing style. This course stresses development beyond the five paragraph essay into individually thought out arguments and persuasive essays in response to thorough analysis of advanced literary texts. Classes consist of lessons on British writers along with vocabulary lessons and various writing assignments.

ENG115: MAJOR THEMES IN LITERATURE

UC APPROVED: “b” English

GRADE LEVEL AT WHICH THE COURSE IS OFFERED: 12th grade

PREREQUISITES OR COREQUISITES: Completion of British Literature, AP Language or other equivalent 11th grade English course.

COURSE CONTENT: This class will include novels, short stories, essays and poems from a variety of major genres which display major themes in literature. Themes and genres will include Redemption in Literature, Portrayals of Good/Evil, The Tragic Hero, Multiculturalism and Modernism/Postmodernism. The purpose of this course is to build a clear understanding of how these themes and genres appear in literature, examining how they reflect major aspects of the human condition.

ENG112AP: AP LANGUAGE AND COMPOSITION

UC APPROVED: “b” English

GRADE LEVEL AT WHICH THE COURSE IS OFFERED: 11th - 12th grade

PREREQUISITES OR COREQUISITES: 11th or 12th grade, a B or better in the previous year of Honors or AP English or teacher approval, or an A or better in the previous year of English and teacher/department chair approval. Summer enhancement work is required for this class.

COURSE CONTENT: The class is the equivalent of a college composition course emphasizing expository, analytical, and argumentative writing that forms the basis of academic and professional communication as well as the personal and reflective writing. This is in response to both selected readings and personal experience and observation. Classes include daily lessons on weekly vocabulary lessons, periodic AP test preparation, daily reading, daily writing in response to the readings, and various writing assignments.

ENG114AP: AP LITERATURE AND COMPOSITION

UC APPROVED: “b” English

GRADE LEVEL AT WHICH THE COURSE IS OFFERED: 12th grade

PREREQUISITES OR COREQUISITES: 12th grade, a B or better in the previous year of AP English and/or instructor approval, or an A or better in the previous year of English and teacher/department chair approval. Summer enhancement work is required for this class.

COURSE CONTENT: In this course, students will participate in the close reading of a variety of literary texts throughout the course. Texts range in genre from poetry, short fiction, drama and novels and span from the 1700’s to modern day. The goal is to expose students to a variety of texts including both American and British literature. As they read, students will participate in class discussion and various types of writing activities about the literature as well as other class activities and projects that assist in their understanding of the text as a work of literature. The main objective is to prepare students for taking the AP Literature and Composition test at the end of the year as well as to prepare students for advanced college work. They are expected to master the various elements of literature learned in ninth and tenth grade reflecting content, structure and style in order to evaluate stories and poems. At this level, they are held to a more collegiate level standard in their knowledge and use of grammar, vocabulary and literature.

ENG103: EXPOSITORY COMPOSITION (1 Semester)

UC APPROVED: “b” English

GRADE LEVEL AT WHICH THE COURSE IS OFFERED: 9th - 10th grades

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: Throughout the course, students will study and practice the use of different types of essays including analytical, argumentative, and persuasive. They will learn about the different types of essays as well as the styles and techniques that are used in essay writing. Students will also read examples of different essays as well as practice writing their own essays.

ENG104: CRITICAL THINKING AND COMPOSITION (1 Semester)

UC APPROVED: “b” English

GRADE LEVEL AT WHICH THE COURSE IS OFFERED: 11th & 12th grades

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: Students will read and critically evaluate collegiate level material from a variety of sources. Students will be able to distinguish between fact, opinion, belief and prejudice, identify formal and informal logical fallacies, practice research and develop their own reading, writing, and thinking process.

ENG113: JOURNALISM

GRADE LEVEL AT WHICH COURSE IS OFFERED: 9th-12th

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: Students will learn the fundamentals of print and online newspaper production. Students will learn the skills necessary for journalistic writing. In addition, they will learn AP Style, interview techniques, and the ethics, law and history of journalism. Course work will consist of reporting, interviewing, writing, editing, teamwork, and publication.

ENG116: CREATIVE WRITING

GRADE LEVEL AT WHICH COURSE IS OFFERED: 9th-12th

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: In this semester long class students will be introduced to various forms of creative writing such as fiction, memoir, and poetry. Students will explore genres of fiction such as fantasy, science fiction, and realistic fiction. Creative writing prompts and activities will strengthen students' ability to write descriptively, use a distinct voice in their writing.

ENG117: SPEECH AND DEBATE

GRADE LEVEL AT WHICH COURSE IS OFFERED: 9th-12th

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: Students will learn to write persuasive speeches and create complete arguments that include a claim, date, and warrant. Students will learn how to research and present information and supporting evidence in a clear, concise, and logical way that presents a clear line of reasoning. Students will also learn to evaluate the point of viewing and reasoning of another person, as well as their use of evidence and fallacious reasoning. As they learn to listen effectively students will respond to counter arguments and attacks on their arguments using logic and evidence.

FOREIGN LANGUAGE

Graduation Requirement: 2 years required, 3 years recommended

FLD101: SPANISH I

UC APPROVED: “e” Language other than English

GRADE LEVEL(S) at which course is offered: 9th – 12th grades

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: Students will recognize and employ a basic written and spoken vocabulary of the Spanish language as well as be able to perform grammatical functions. Students will learn conjugation of regular verbs in present, present progressive, definite and indefinite articles, noun-adjective agreement, conjugation of selected irregular verbs, formation of negative sentences, possessive adjectives, and compare and contrast Hispanic and USA cultures and customs. Students will be using a textbook and workbook to acquire language. Most classroom interactions are in Spanish with the exception of grammatical explanations.

FLD102: SPANISH II

UC APPROVED: “e” Language other than English

GRADE LEVEL(S) at which course is offered: 9th – 12th grades

PREREQUISITES OR COREQUISITES: Spanish I with a C- or higher (both semesters).

COURSE CONTENT: This course includes review of correct conjugation of regular and irregular verbs; conjugation of regular and irregular verbs in present, preterit and imperfect; formation of present progressive tense; formal and informal commands and use of direct and indirect object pronouns, and reflexive verbs. The grammar studied in the classroom will enable students to communicate beyond that learned in Spanish I. A textbook and workbook are used to acquire language. All classroom interactions are in Spanish with the exception of grammatical explanations.

FLD103: SPANISH III

UC APPROVED: “e” Language other than English

GRADE LEVEL(S) at which course is offered: 10th – 12th grades

PREREQUISITES OR COREQUISITES: Spanish II with a grade of C- or better (both semesters).

COURSE CONTENT: This course includes a review of correct conjugation of regular and irregular verbs in the present, preterit, imperfect, future and conditional tenses, correct use of commands, formal and informal, correct use of reflexive verbs, direct and indirect object pronouns and proper use of por vs. para and pero vs. sino. There will be an increased emphasis on reading longer passages, writing, and pursuing conversational fluency. The majority of classroom interaction is in Spanish.

FLD104: SPANISH IV Honors

UC APPROVED: “e” Language other than English

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 11th – 12th grades

PREREQUISITES OR COREQUISITES: Spanish III with a grade of B- or better or teacher/department approval.

COURSE CONTENT: Classroom instruction and interaction are almost exclusively in Spanish and will include extensive oral and written composition. Students will be required to read authentic materials in Spanish for comprehension. Participation in dramatization, role playing, speeches, games, and oral reports are required.

FLD105AP: AP SPANISH LANGUAGE

UC APPROVED: “e” Language other than English

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 11th - 12th grades. This course is not offered every year.

PREREQUISITES OR COREQUISITES: Spanish IV with a grade of B+ or better and/or teacher/department chair approval.

COURSE CONTENT: Classroom instruction and interaction are solely in Spanish and will include extensive oral and written composition. Students will be required to read authentic materials for comprehension. The course will prepare students for the AP exam with an increased focus on understanding and responding appropriately to spoken Spanish and understanding and synthesizing written material. This course is not offered every year.

MATHEMATICS

**Graduation Requirement: 3 years required, 4 years recommended
Must complete through Algebra II**

MATH111: ALGEBRA I

UC APPROVED: “c” Mathematics

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th - 10th grades

PREREQUISITES OR COREQUISITES: Placement testing, previous math grades, and previous teacher recommendation

COURSE CONTENT: Students will be introduced to and become adept in using algebraic procedures and apply these concepts in mathematical problem solving. Concept recognition and skill application of algebraic properties and techniques will allow students to solve problems at a more abstract, higher cognitive level than simple arithmetic procedures used before. Students will be prepared for Geometry, Algebra II, and computer programming/computer applications that are predicated on the knowledge of algebra.

MATH113: GEOMETRY

UC APPROVED: “c” Mathematics

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th - 11th grades

PREREQUISITES OR COREQUISITES: Algebra I with a C- or higher both semesters

COURSE CONTENT: The study of Geometry includes points, lines, planes, angles, parallel lines and planes, congruent triangles and using congruent triangles in proofs, similar polygons, right triangles, the trigonometric functions (including the Law of Sines and the Law of Cosines), the Pythagorean Theorem, circles, constructions (if time permits) and loci, areas of plane figures, area and volumes of solids, coordinate geometry, and a brief look at transformations.

MATH113H: GEOMETRY HONORS

UC APPROVED: “c” Mathematics (this course is UC approved however UC does not recognize Geometry as an honors course)*

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th - 11th grades

PREREQUISITES OR COREQUISITES: An A in Algebra I, and/or teacher/department chair approval.

COURSE CONTENT: The study of geometry includes points, lines, planes and angles, deductive and inductive reasoning, parallel and perpendicular lines, geometric ideas and principles, congruent and similar polygons, right triangle trigonometry, and circles. Students will complete geometric proofs and rehearse algebra skills in challenging problems. Students will relate and apply geometric concepts to various other areas of mathematics such as algebra, logic, probability, and constructions.

MATH112: ALGEBRA II

UC APPROVED: “c” Mathematics

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th – 12th grades

PREREQUISITES OR COREQUISITES: Geometry with a C- or higher both semesters

COURSE CONTENT: This course includes the following: a review of basic algebra, linear equations, systems of linear equations and inequalities, matrices and determinants, quadratic equations and parabolas, functions, powers, roots and radicals, exponential and logarithmic functions, polynomials and polynomial functions, rational functions, quadratic relations, sequences and series, trigonometric graphs, identities and equations, and probability and statistics.

MATH112H: ALGEBRA II/TRIGONOMETRY HONORS

UC APPROVED: “c” Mathematics (this course is UC approved but not recognized as a UC honors course) *

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th – 12th grades

PREREQUISITES OR COREQUISITES: An A in Algebra I, an A in Geometry or minimum of a B in Geometry honors, and/or teacher/department chair approval. Summer enhancement work is required for this class.

COURSE CONTENT: This course includes the following: Linear, quadratic and polynomial equations and their graphs, inequalities, polynomials, rational and exponential and logarithmic expressions and equations, irrational and complex numbers, conic sections, sequences and series, triangle trigonometry, trigonometric graphs, identities, equations, and applications. Graphing calculator required.

MATH114: PRE-CALCULUS

UC APPROVED: “c” Mathematics

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 10th – 12th grades

PREREQUISITES OR COREQUISITES: Algebra II with a B- or higher (both semesters) and/or instructor approval

COURSE CONTENT: In this class, students will gain competency in functions and their graphs, polynomials, exponential and logarithmic functions, solving linear, polynomial, rational, exponential, logarithmic and trigonometric equations, complex numbers, trigonometry, conic sections, analytic geometry, data modeling, and regression curves. Students will apply the mathematical concepts learned while solving problems over a wide range of disciplines such as physics, chemistry, the social sciences, biology, business, and art.

MATH114H: PRE-CALCULUS HONORS

UC APPROVED: “c” Mathematics

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 10th – 12th grades

PREREQUISITES OR COREQUISITES: An A or better in Algebra II, or B or better in Algebra II/Trigonometry Honors and/or teacher/department chair approval.

COURSE CONTENT: This course is a college preparatory math course. The pace of the course is more rapid than the regular Pre-Calculus course. Trigonometry, math analysis and some of the basics from calculus are included in the course. If taken and passed by an 11th grade student, that student would be allowed to take AP Calculus BC during their senior year.

MATH116AP: AP CALCULUS AB

UC APPROVED: “c” Mathematics

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 10th – 12th grades

PREREQUISITES OR COREQUISITES: A grade of B or better in Honors Pre-Calculus or an A or better in Precalculus and/or teacher/department chair approval.

COURSE CONTENT: The course starts with a review of the basic concepts necessary for the study of calculus. The limit is then introduced along with strategies for finding limits such as the rationalization technique and the Squeeze Theorem. Differentiation and integration along with their applications are studied in depth including integration by parts and simple partial fractions. We also study the area between two curves and the solids of revolution using the disc, washer, and shell methods of evaluation. Parametric, polar, and vector functions are studied including their derivatives. Improper integrals, numerical solution of differential equations using Euler’s method, L’Hopital’s Rule including its use in determining limits and convergence of improper integrals and series. The final topics of study include polynomial approximations and series, the Taylor polynomial approximation and the general Taylor and the Maclaurin series are studied. Functions defined by power series and radius and interval of convergence of power series are included. The final topics are Lagrange error bound for Taylor polynomials.

MATH123AP: AP CALCULUS BC

UC APPROVAL: “c” Mathematics

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 10th - 12th grade

PREREQUISITES OR COREQUISITES: Advanced Placement Calculus AB and teacher/department chair approval.

COURSE CONTENT: Students explore in depth various integration techniques, work, infinite series (convergent, divergent, power, Maclaurin and Taylor series), parametric equations and polar coordinates. Other topics could include centroids, moments of inertia, vectors and surfaces, vector-valued functions, an introduction to partial differential equations, and the Calculus of Variation.

MATH117: STATISTICS

UC APPROVED: “c” Mathematics

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 11th – 12th grades

PREREQUISITES OR COREQUISITES: Algebra II with a C- or higher (both semesters).

COURSE CONTENT: In this course, students will explore data by observing patterns and departures from patterns, planning a study and deciding what and how to measure, anticipating patterns by producing models using probability and simulation and statistical inference by confirming models.

MATH117AP: AP STATISTICS

UC APPROVED: “c” Mathematics

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 11th – 12th grades

PREREQUISITES OR COREQUISITES: A grade of B or better in Honors Algebra II, an A in Algebra II and/or teacher/department chair approval.

COURSE CONTENT: In this course, students will explore data by observing patterns and departures from patterns, planning a study and deciding what and how to measure, anticipating patterns by producing models using probability and simulation, and statistical inference by confirming models. The course’s tangible objective is to prepare the student for the Advanced Placement examination in May.

MATH118: PERSONAL FINANCE

UC APPROVED: “g” elective (Mathematics)

GRADE LEVEL AT WHICH COURSE IS OFFERED: 11th-12th

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: This semester-long course introduces students to essential financial principles that they can start implementing in high school, but will also carry forward into life after high school. Students will be introduced to basic principles and skills such as how to create a budget, savings, how to avoid debt, and in introduction to investing, insurance, and taxes. The course will also take a look at entrepreneurship with a focus on business finances, marketing, and business management.

*While all of our math courses are UC approved, the UC system does not recognize Honors math courses as honors unless they have a prerequisite of three years of College Preparatory Math courses. The honors track is still the best path for preparing students for upper level honors math classes.

PHYSICAL EDUCATION

Graduation Requirement: 2 semesters required or 2 seasons of a sport

PLEASE NOTE: This graduation requirement may be waived if students participate in two seasons of any sport in their years at Grace Brethren. Other waivers will be considered on a case-by-case basis.

PED140: HIGH SCHOOL PHYSICAL EDUCATION

GRADE LEVELS AT WHICH COURSE IS OFFERED: 9th - 12th grades

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: The Fitness For Life curriculum will include a basic introduction to fitness. This course is designed for students who would like to attain certain health and fitness goals with a supportive environment. Open to both boys and girls.

SCIENCE

Graduation Requirement: 3 years

SCI119: CONCEPTUAL PHYSICS

UC APPROVED: “d” Laboratory Science

GRADE LEVEL AT WHICH COURSE IS OFFERED: 9th grade

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: This course will cover common themes of physics such as mechanics, properties of matter, heat, sound and light, electricity and magnetism, and atomic and nuclear physics. Most importantly, this course will teach students how to think. Students will discover that they can comprehend complex material while refining their math skills in a practical way. In addition, this course will build the student’s competency in the process of scientific investigation and in his or her ability to distinguish between “good science” and “bad science”. Also, students will increase their laboratory safety and experimentation skills through conducting and observing various laboratory experiments. Ultimately, each student’s understanding of the Maker of our universe will be strengthened as we view His creation through the eyes of science.

SCI119H: CONCEPTUAL PHYSICS HONORS

UC APPROVED: “d” Laboratory Science

GRADE LEVEL AT WHICH COURSE IS OFFERED: 9th grade

PREREQUISITES OR COREQUISITES: An A in the previous year of science and/or teacher/department chair approval.

COURSE CONTENT: This course will cover common themes of physics such as mechanics, properties of matter, heat, sound and light, electricity and magnetism, and atomic and nuclear physics. Most importantly, this course will teach students how to think. Students will discover that they can comprehend complex material while refining their math skills in a practical way. In addition, this course will build the student’s competency in the process of scientific investigation and in his or her ability to distinguish between “good science” and “bad science”. Also, students will increase their laboratory safety and experimentation skills through conducting and observing various laboratory experiments. Ultimately, each student’s understanding of the Maker of our universe will be strengthened as we view His creation through the eyes of science.

SCI111: CHEMISTRY

UC APPROVED: “d” Laboratory Science

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 10th -12th grades

PREREQUISITES OR COREQUISITES: Algebra I with a C- or better (both semesters).

COURSE CONTENT: The course begins with an introduction to chemistry and the concepts on matter and change. The periodic table is studied in relation to the following concepts: atomic structure, models of the atom, organization and classification of elements, bonding, chemical names and formulas as well as chemical reactions. Stoichiometric problems are dealt with followed by studies on the states of matter, behavior of gasses, water and aqueous solutions, solutions, thermochemistry, reaction rates and equilibrium, acids and bases, redox reactions, electrochemistry, organic chemistry and nuclear chemistry.

SCI111H: CHEMISTRY HONORS

UC APPROVED: “d” Laboratory Science

GRADE LEVEL(S) AT WHICH COURSE IS TAUGHT: 10th -12th grades

PREREQUISITES OR COREQUISITES: Algebra I with an A or better (both semesters) and a B or better in the previous year of Honors Conceptual Physics or a B+ or better in the previous year of Conceptual Physics and teacher/department chair approval. Algebra II is a co-requisite.

COURSE CONTENT: The students in this course will learn the basic principles covered in a college general chemistry course. The first six chapters give a largely macroscopic, phenomenological view of chemistry. The next seven chapters deal with electronic structure and bonding, states of matter and solutions. The following seven chapters examine the factors that determine the speed and extent of chemical reactions: kinetics and equilibria. The topics on electrochemistry, nuclear chemistry and organic chemistry are discussed in the last chapters of the course.

SCI111AP: AP CHEMISTRY

UC APPROVAL: “d” Laboratory Science

GRADE LEVEL AT WHICH COURSE IS OFFERED: 11th -12th grades

PREREQUISITE OR COREQUISITE: A B or better in the previous year of Honors Chemistry or a 92% or better in the previous year of Chemistry and/or teacher/department chair approval. The AP Chemistry course is designed to be taken only after the successful completion of a first course in high school chemistry. In addition, the recommended mathematics prerequisite for an AP Chemistry class is the successful completion of Algebra II.

COURSE CONTENT: The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. Students in such a course will attain a depth of understanding of fundamentals and a reasonable competence in dealing with chemical problems. The course will contribute to the development of the students’ abilities to think clearly and to express their ideas, orally and in writing, with clarity and logic.

SCI110: BIOLOGY

UC APPROVED: “d” Laboratory Science

GRADE LEVEL AT WHICH COURSE IS OFFERED: 11th -12th grades

PREREQUISITE OR COREQUISITE: None

COURSE CONTENT: Biology begins with a review of the scientific method and biblical principles pertaining to the study of life. Students then study in sequence the chemistry of life, the anatomy and physiology of cells, genetics and the Creation/Evolution debate. During second semester, students are introduced to themes in ecology, survey the diversity of life, from bacteria to mammals and finally will investigate the systems of the human body.

SCI110H: BIOLOGY HONORS

UC APPROVED: “d” Laboratory Science

GRADE LEVEL AT WHICH COURSE IS OFFERED: 11th -12th grades

PREREQUISITE OR COREQUISITE: A B or better in the previous year of Honors Chemistry or a B+ or better in the previous year of Chemistry and/or teacher/department chair approval.

COURSE CONTENT: Honors Biology begins with a review of the scientific method and Biblical principles pertaining to the study of life. Students then study in sequence the chemistry of life, the anatomy and physiology of cells, genetics, biotechnology, and the Creation/Evolution debate. Special emphasis is placed on recent developments by proponents of intelligent design. During the second semester, students are introduced to themes in ecology, survey the diversity of life, from bacteria to mammals, and finally will investigate the systems of the human body.

SCI110AP: AP BIOLOGY

UC APPROVAL: “d” Laboratory Science

GRADE LEVEL AT WHICH COURSE IS OFFERED: 11th -12th grades

PREREQUISITE OR COREQUISITE: A B or better in the previous year of Honors Chemistry or an A in the previous year of Chemistry and/or teacher/department chair approval.

COURSE CONTENT: This advanced Biology class will provide a comprehensive, college-level exposure to the Biological Sciences. This course will demand extra time on the part of the student, including some Saturday labs and summer preparation.

SCI121AP: AP PHYSICS I

UC APPROVED: “d” Laboratory Science

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th - 12th grades

PREREQUISITES OR COREQUISITES: A B or better in the previous year of Honors or AP science or an A or better in the previous non-Honors science and/or teacher/department chair approval. A B- or better in Geometry.

COURSE CONTENT: The AP Physics I course is the first year of introductory physics. AP Physics I encompasses core scientific principles and theories including: Kinematics, Newton's laws, Circular motion, Universal law of gravitation, Simple Harmonic Motion, Work, Energy, Rotational Motion, Electrostatics, DC Circuits, Mechanical Waves, and Sound. In AP Physics I, content and reasoning are equally important.

SCI122AP: AP PHYSICS 2

UC APPROVED: “d” Laboratory Science

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 10th - 12th grades

PREREQUISITES OR COREQUISITES: A B or better in the previous year of Honors or AP science or an A or better in the previous non-Honors science and/or teacher/department chair approval. A B- or better in Geometry.

COURSE CONTENT: AP Physics 2 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics.

SCI113: ANATOMY AND PHYSIOLOGY

UC APPROVED: “d” Laboratory Science

GRADE LEVEL AT WHICH COURSE IS OFFERED: 11th - 12th grades

PREREQUISITES OR COREQUISITES: Biology or Chemistry with a C- or better.

COURSE CONTENT: The course begins with a review of the basic concepts necessary for the study of anatomy and physiology such as language of anatomy, chemistry, and cytology. Histology will then be introduced followed by the different systems of the human body which are placed in four different units: (1) covering, support and movement of the human body, (2) regulation and integration of the body (3) maintenance of the body, and (4) continuity.

SCI114: SPORTS MEDICINE

UC APPROVED: “g” Elective

GRADE LEVEL AT WHICH COURSE IS OFFERED: 10th - 12th grade

PREREQUISITES OR COREQUISITES: Completion of 9th grade science.

COURSE CONTENT: The pathology, pathophysiology, diagnosis and treatment of acute and chronic sports medicine and orthopedic injuries, including soft tissue, bone and nerve injury. The pathology and pathophysiology of acute and chronic medical illness in the active population. The psychological aspects of exercise, performance and injury. Preventive medicine and the athletic pre-participation exam, including the ethical and medicolegal aspects. Physiology and pathophysiology of hydration, nutrition and the use of pharmacologic agents, including performance enhancing and mood-altering substances of athletes. How to diagnose and treat common acute and chronic sports medicine and orthopedic injuries. Normal anatomy, physiology and biomechanics of the musculoskeletal and neurologic system.

SCI212H: PRINCIPLES OF ENGINEERING HONORS

UC APPROVED: “d” Elective (pending)

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th - 12th grades

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

SCI214H: AEROSPACE ENGINEERING HONORS

UC APPROVED: “d” Elective

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th - 12th grades

PREREQUISITES OR COREQUISITES: Introduction to Engineering & Design and/or Principles of Engineering

COURSE CONTENT: Aerospace Engineering is the study of the engineering discipline which develops new technologies for use in aviation, defense systems, and space exploration. The course explores the evolution of flight, flight fundamentals, navigation and control, aerospace materials, propulsion, space travel, orbital mechanics, ergonomics, remotely operated systems and related careers. In addition, the course presents alternative applications for aerospace engineering concepts. Students will analyze, design, and build aerospace systems. While implementing these designs, students will continually hone their interpersonal skills, creativity, and application of the design process. Students apply knowledge gained throughout the course in a final multimedia project to envision their future professional accomplishments.

SCI216H: SPACECRAFT ENGINEERING HONORS

UC APPROVED: “d” Elective

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 10th - 12th grades

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: This class is centered on students going through the design and building process for constructing and launching a cube satellite. A cube satellite is 10cm by 10cm by 10cm. This small satellite will carry student created experiments into orbit around Earth. Once the satellite is launched, students will continue to monitor, communicate, and record data. Students will also have the experience of engaging with real world engineers through class lectures and field trips.

HISTORY

Graduation Requirement: 3.5 years

HIS109: ANCIENT CIVILIZATIONS

UC APPROVED: “a” Elective

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th grade (1 semester)

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: In this course, students study the major turning points that shaped the ancient world from the earliest civilizations to the rise of the Greeks and Romans. They will trace the rise of democratic ideas and develop an understanding of the historical roots of current world issues.

HIS110: WORLD HISTORY AND CULTURES

UC APPROVED: “a” History/Social Science

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 10th grade

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: In this course, students examine major turning points in shaping of the modern world, from the late fifteenth century to the present. The year begins with an introduction to current world issues and then continues with a focus on the expansion of the West and the growing interdependence of people and cultures throughout the world. This class will also include a review of the Protestant Reformation and moves forward to recent history and current events.

HIS113AP: AP WORLD HISTORY: MODERN

UC APPROVED: “a” History/Social Science

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 10th – 12th grades

PREREQUISITES OR COREQUISITES: An A or better in Ancient Civilization and/or teacher/ department chair approval.

COURSE CONTENT: The AP European course starts in 1450 with the introduction of the Protestant Reformation. It traces relevant cultural, political, social and economic trends throughout European History up through the end of the Cold War in 1992. Students will witness the major trends throughout modern European History through their textbook and outside primary sources.

HIS111: UNITED STATES HISTORY

UC APPROVED: “a” History/Social Science

GRADE LEVEL AT WHICH COURSE IS OFFERED: 11th grade

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: In this class, economic, political, social, cultural, militaristic, intellectual history is examined from the perspective of God’s sovereign intervention in the affairs of mankind. Students are expected to master major historical periods and pivotal events that shaped American history. These events include the Progressives, World Wars I and II, Great Depression, New Deal, Cold War, and much more.

HIS111AP: AP UNITED STATES HISTORY

UC APPROVED: “a” History/Social Science

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 11th grade

PREREQUISITES OR COREQUISITES: An A or better in World History and Cultures, a B or better in AP World History and/or teacher/department chair approval

COURSE CONTENT: In this class, students will be introduced to the pre-history of the North American continent, European exploration and the American Revolutionary period to modern United States History. The Advanced Placement program in United States History is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with the problems and materials in United States History. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full year introductory college courses. Students should learn to assess historical materials—their relevance to a given interpretive problem, their reliability, and their importance—and to weigh the evidence and interpretations represented in historical scholarship.

HIS112: UNITED STATES GOVERNMENT AND ECONOMICS

UC APPROVED: “a” History/Social Science

**PLEASE NOTE: 1st Semester of United States Government is UC approved.

GRADE LEVEL AT WHICH COURSE IS OFFERED: 12th grade

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: This class builds upon the student’s previous learning to deepen his or her understanding of the different functions and philosophies of government. The students will study a detailed examination of federal governmental structure, the state structure and the role of the Christian citizen in it. Economics (2nd semester) covers the American economic system, the laws of supply and demand, business economics, institutional stability and global issues.

HIS112AP: AP UNITED STATES GOVERNMENT & POLITICS

UC APPROVED: “a” History/Social Science

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 12th grade

PREREQUISITES OR COREQUISITES: An A or better in U.S. History, a B or better in AP U. S. History and/or teacher/department chair approval

COURSE CONTENT: The course will take a thorough look at the American system, opinions, interests and organizations that influence the political process, the institutions of government, the politics of public policy, and the nature of American democracy. The course’s tangible objective is to prepare the student for the Advanced Placement examination in May.

VISUAL AND PERFORMING ARTS

Graduation Requirement: 1 year or 2 semesters in the same discipline

FAD107: SH CHOIR I, II, III & IV

UC APPROVED: “f” Visual and Performing Arts

GRADE LEVEL AT WHICH COURSE IS OFFERED: 9th - 12th grades

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: This class is designed to introduce, develop and master the skills of vocal technique and vocabulary. Vocal stylization will be emphasized. Students will be introduced to all genres of music. Students will study theory, music language and principles of performing and competition. The development of student leadership is emphasized.

FAD112: SH ART MEDIA I/II

UC APPROVED: “f” Visual and Performing Arts

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th - 12th grades

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: In this class, students study themes in art, art media and techniques, as well as the chronology and history of art from prehistoric times through the present. Students are presented with various artistic styles, historical periods, and traditions of diverse cultures. In addition, cross-curricular features throughout various lessons provide students the opportunity to see how art is integrated with other disciplines. The course also covers a wide range of media, techniques, processes and artistic styles.

FAD112B: SH ART MEDIA III/IV

UC APPROVED: “f” Visual and Performing Arts

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th - 12th grades

PREREQUISITES OR COREQUISITES: SH Art Media I/II

COURSE CONTENT: In this class, students study themes in art, art media and techniques, as well as the chronology and history of art from prehistoric times through the present. Students are presented with various artistic styles, historical periods, and traditions of diverse cultures. In addition, cross-curricular features throughout various lessons provide students the opportunity to see how art is integrated with other disciplines. The course also covers a wide range of media, techniques, processes and artistic styles. This class is an advancement of SH Art Media I/II.

FAD112AP: AP 2D ART & DESIGN

UC APPROVED: “F” Visual and Performing Arts

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 11th - 12th grades

PREREQUISITES OR COREQUISITES: Art Media

COURSE CONTENT: Students create a portfolio of work to demonstrate inquiry through art and design, and the development of materials, processes, and ideas over the course of a year. Portfolios include works of art and design, process documentation, and written information about the work presented. In May, students submit portfolios for evaluation based on specific criteria which includes skillful synthesis of material, process, and ideas as well as sustained investigation through practice, experimentation, and revision guided by questions.

FAD114: SH PHOTOGRAPHY

UC APPROVED: “F” Visual and Performing Arts

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th - 12th grades

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: In this class, students are taught the terminologies and techniques of photography. They will study the sensory, formal, expressive, and aesthetic properties of photographic art. Students will learn about the history of cameras and compare and contrast digital cameras vs. film cameras. They will learn about the capability of the different lenses, aperture settings, film speeds, and shutter settings to achieve the result they want in their photographs. They will learn the Elements of Art and the Principles of Design and how to use these elements and principles in their photographs. Students will take short field trips near the campus to fulfill their photo assignments.

COMPED101: COMPUTER GRAPHICS

UC APPROVED: “F” Elective

GRADE LEVEL AT WHICH COURSE IS OFFERED: 9th - 12th grade

PREREQUISITES OR COREQUISITES: Students must be adept at Microsoft applications.

COURSE CONTENT: This course seeks to prepare the student for entrance into a world of visual communication. Students will learn the basics of essential programs that have become the industry standard for design. Adobe’s Photoshop and Illustrator will become a tool of communication as they learn to wield their nuances. The course will engage in the production of graphic artwork within the context of its use in the professional environment.

FAD117: TECHNICAL THEATER

UC APPROVED: “f” Visual and Performing Arts

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th - 12th grades

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: In this class, students will begin with a series of lectures containing all key components needed for safe and efficient production work. They will then begin with hands-on set building and working with some tools. Throughout the year, they will progress in their knowledge and ability to use more tools and techniques. They will practice set design by designing and constructing a diorama. Students will work on the Fall play, Christmas show, and Spring show as major projects. They will also work on other events which need technical assistance.

FAD121: SH FILM STUDIES

UC APPROVED: “f” Visual and Performing Arts

GRADE LEVEL(S) AT WHICH THE COURSE IS OFFERED: 9th - 12th grades

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: In this class, students will be introduced to various classic films and current films that are revolutionary or contributing to artistic excellence in film making. Students will compare and contrast literature and its jump to film and will produce their own short film.

FAD122: CERAMICS

UC APPROVED: “f” Visual and Performing Arts

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th - 12th grades

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: This course offers the student exposure to the principles of basic, three dimensional designs through the medium of clay. Students will experience various construction techniques to include hand-building processes to a more advanced level of proficiency of throwing in the potter’s wheel. Commercial aspects of slip-casting, or working with molds, will also be included.

FAD204: JAZZ BAND I, II, III & IV

UC APPROVED: “f” Visual and Performing Arts

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th - 12th grades

PREREQUISITES OR COREQUISITES: Intermediate Level Ability on an Approved Instrument

This class is available for students interested in playing in a jazz band ensemble that have at least one (1) year experience playing with a private teacher or in an organized school program. Student must be able to read music at an intermediate level. This class is open to most all instruments (strings and piano excluded). This is a performance ensemble, with concerts during the year. In addition, students will be taught history of jazz and the art of improvisation.

ENG119: YEARBOOK

UC APPROVED: “f” Elective

GRADE LEVEL(S) AT WHICH COURSE IS OFFERED: 9th -12th grades

PREREQUISITES OR COREQUISITES: None

COURSE CONTENT: Students design and utilize templates to complete spreads made up of texts, photos, and graphic designs. Students learn basic photography skills necessary to be able to take candid photos of school sporting events and activities. Interviewing techniques are introduced so students are able to accurately gather information for publication. Each student has equal opportunity and responsibility as part of the yearbook staff to attend specifically assigned GBS activities or sporting events after school hours to take photos and gather information vital to the successful completion of their yearbook pages. The annual publication, the GBHS Yearbook, showcases all the skills that the students have practiced and learned throughout the year. It is distributed to all students at the end of each school year.

GBHS SENIOR HIGH GRADUATION REQUIREMENTS

The Grace Brethren High School program is based on a college preparatory curriculum. Students are advised and encouraged to pursue a rigorous course of study to maintain a competitive edge with regards to UC/CSU minimum admission requirements.

GBHS General Graduation Requirements:

Class	GBHS Requirements
Bible	each year
English	4 years
Math (through Algebra 2)	3 years
Science (two from: Biology, Chemistry and Physics)	3 years
History	3.5 years
Expository Composition	1 semester
Foreign Language (2 years of the same language)	2 years
Critical Thinking & Composition	1 semester
PE (2 semesters) or sports (2 seasons)	2 semesters or 2 seasons
Visual or Performing Arts (2 semesters in the same discipline)	2 semesters
Electives	remaining units

Important to Note:

270 credits are required for graduation.

Students may take up to 40 credits for advancement outside of Grace through an approved program. These credits may satisfy up to ten credits of coursework in each of the following: English, History, Math, and Science. Students may satisfy their foreign language, physical education, and visual-performing arts credits through an approved program as well.

Seniors must be enrolled in a minimum of 6 courses each semester.

Seniors are eligible for a free period if they have a 2.6 GPA or higher.

Seniors are strongly advised to take either the SAT or the ACT at least once prior to graduation.

Senior Graduation Ceremony:

As stated in Grace Brethren Junior/Senior High Student Handbook:

In order to participate in the Graduation Ceremony and/or receive a Grace Brethren high school diploma, seniors must meet the following requirements:

Complete all academic requirements and accumulate the 270 credits necessary for graduation.

Have all financial obligations to the school paid in full.

Have a satisfactory disciplinary record.

Have a minimum GPA of a 2.0 and have no more than 3 semester Fs in their 4 year high school career

Additionally, any student failing three or more classes will not be allowed to participate in the graduation ceremony or receive a diploma until classes have been taken and credit earned. If ineligible to graduate because of failing class/es, the student must be enrolled in a summer school program (on or off campus) in order to successfully complete the missing required class/es. The approval of administration is required if class/es are taken off campus. Upon successful completion of these class/es, a Grace Brethren Diploma will be presented to the student.