



Rock Solid
HIGH SCHOOL

Curriculum and Course Descriptions

Freshman Courses

2010-2011

Algebra I

Curriculum: *Algebra I* by Glencoe/McGraw-Hill

This two-semester course offers students the fundamentals of algebra, introductory problem solving, and elements of geometry such as area, volume, and perimeter. Emphasis is upon frequent introductions of small concepts and continuous review.

English 9

Curriculum: *Writer's Inc.* by Great Source, *Reader's Handbook* by Great Source, *Best Non-Fiction* by Jamestown, *Bruchko* by Bruce Olson

This two-semester course focuses on the essentials for communication, **primarily written**. Students spend the first semester on the basics of vocabulary, grammar and composition. During the second semester, students are introduced to different forms of writing (essays, research papers, etc.) that they will use throughout high school and college. Students are tested not only on factual knowledge but also on use of their knowledge in essays and creative writing assignments.

Geography

Curriculum: *Geography Alive!* By Teachers' Curriculum Institute,

This two-semester course involves an in-depth study of the geography of the world, incorporating mapping and learning about the cultural aspects and current events of various countries. This practical approach allows students to experience what God is doing around the world. Students will draw maps of various regions and of the entire world free hand.

Physical Education I

Curriculum: *Getting in Shape* by Anderson, Burke, and Pearl

This two-semester course will offer the students motivation to adopt a physical fitness regime that can become a lifestyle and can make them more successful in every facet of life--over a longer, healthier span of time. The instruction includes elements that show the student that his/her body is good and worthy of being treated as a creation of God; to believe that they have a personal responsibility to adopt a healthy lifestyle that includes a balanced physical fitness plan that will help prevent the onset of disease; that sportsmanship and healthy competition can aid them in the pursuit of all their lifelong goals and, that physical fitness is *fun*. The rules and organization of a variety of individual and team sports and activities will also be demonstrated.

Physical Science

Curriculum: *Physical Creation* by Pensacola Christian College, Abeka

This two-semester course explores the fundamentals of physical science from a Christian perspective. The topics include: geology, weather, oceanography, and introductions to chemistry and physics. Class work will include hands-on demonstrations and experiments as well as the use of scientific methods.

Spanish I

Curriculum: *Realidades 1* by Pearson Prentice Hall

This two-semester course is designed to offer students the opportunity to develop the skills to speak, understand, read and write basic Spanish in most everyday situations **with a strong emphasis on witnessing for Christ.**



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Curriculum and Course Descriptions

Sophomore Courses

2010-2011

Biology

Curriculum: *Biology* by Bob Jones University Press

This comprehensive two-semester course covers cellular biology, genetics, taxonomy, microbiology, botany, zoology, human anatomy and physiology from a Christian perspective. Lab work includes exercises and demonstrations designed to teach and reinforce important biological concepts.

Computer I

Curriculum: *Lesson plans developed from Goals and Objectives*

This one-semester course gives the student exposure to and experience in the current computer technology used in home, school and business. This course will cover computer basics, word processing, spreadsheets and an introduction to the internet.

Computer II

Curriculum: *Lesson Plans developed from Goals and Objectives*

Pre-Requisite: Computer I

This one-semester course is a continuation of the Computer I course. It delves deeper into areas such as: advanced word processing, personal financial software, presentation software, advanced use of spreadsheet, and continuation of safe internet use.

Geometry

Curriculum: *Geometry* by Glencoe/McGraw-Hill

Pre-Requisite: Algebra I

In this two-semester course, students develop inductive and deductive reasoning skills as they learn the basics of geometry. Through hands-on activities, students investigate properties of the basic figures of geometry—triangles, quadrilaterals and other polygons, as well as circles. They are exposed to deductive arguments in informal, real-life situations and in mathematical settings related to properties of triangles. Using a variety of investigative tools, students discover formulas for the areas of polygons and circles, and apply them to solve real-world problems. They are encouraged to develop and improve their spatial visualization and reasoning skills with three-dimensional figures.

Geometry Continued

Students investigate properties of parallel lines and write deductive arguments to justify their conclusions. Building on the strong foundation of congruency, students discover conditions that ensure congruent triangles. Students apply what they have learned about triangles to develop properties of parallelograms, trapezoids and kites. Finally, students study circles from an algebraic point of view by writing equations of circles in the coordinate plane.

Spanish II

Curriculum: *Realidades 2* by Pearson Prentice Hall

Pre-Requisite: Spanish I

This two-semester course builds on the basics taught in Spanish I. Students are encouraged to progress to a conversational level. The course includes Bible memory verses, local Spanish culture experiences and cultural readings.

World History

Curriculum: *World History* by Bob Jones University

This two-semester course is a survey of world history from creation to modern times. Students are introduced to a wide spectrum of historical events and encouraged to interpret those events in the light of God's Word.

World Literature

Curriculum: *Implications of Literature, Navigator Level* by Textword and *The Bedford Handbook 7th Edition* by Diana Hacker

Supplemental classic readings throughout the course.

This two-semester course explores classical works in world literature, correlating with time periods that are studied in the world history course. Emphasis is placed on reading, writing, class discussion and the logical presentation of thoughts in both spoken and written form. Grammar study is integrated in the continuation of the writing process.



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Curriculum and Course Descriptions

Junior Courses

2010-2011

ACT/SAT Prep Course

Curriculum: *(to be determined)*

This one-semester course is designed to prepare students to take the ACT and SAT college entrance exams. This course will be used to improve learning, performance, superior testing skills, as well as build confidence for successful testing. Practical test taking skills for each test will be covered as well as practice tests and quizzes in each of the test categories. This course will help students logically organize their study skills to maximize their study time.

Algebra II

Curriculum: *Algebra 2* by Glencoe/McGraw-Hill

Pre-Requisite: Algebra I

This two-semester course covers algebra, and trigonometry. Word problems are used extensively to encourage the student's analysis skills. The algebra elements include all the rules for exponents, factoring methods, quadratic equation, logarithms, basic probability, direct and inverse variation, and functional notation. The trigonometry element includes solving right triangles by using sine, cosine, and tangent functions. Basic vector theory is covered including the addition of vectors, negative vectors and resultant force at a point. The relationship between polar and rectangular coordinates are also covered and how to make the conversions.

American Literature

Curriculum: *Implications of Literature, Pioneer Level* by Textword.

Also there will be supplemental classic readings throughout the course.

This study of American Literature is intended to increase both reading skills and critical thinking skills. American Literature will expose students to different worldviews and ideologies within the safety of a Christian community. The students will be encouraged to enter into the great conversation and respond in a creative manner to the art they are to experiencing. The course will survey Puritan, Enlightenment, Romantic, and Modern Literature.

Chemistry**Curriculum:** *Chemistry* by Holt**Pre-Requisite:** Algebra I

This two-semester course covers a wide range of chemical principles, mathematical problem-solving skills and laboratory work. The following are examples of areas studied: properties of matter and the states of matter, writing chemical formulas and nomenclature, types of chemical reactions, balancing chemical equations, gas properties, gas laws and kinetic molecular theory, atomic theory and composition of the atom, principles and applications of nuclear chemistry, electron configuration and orbital sequencing, organic chemistry functional groups and biochemical fundamentals. Home assignments such as textbook reading and review problems are given daily. Each semester there are five to seven laboratory experiments done in class with required written lab reports.

Computer II**Curriculum:** *Lesson Plans developed from Goals and Objectives***Pre-Requisite:** Computer I

This one-semester course is a continuation of the Computer I course. It delves deeper into areas such as: advanced word processing, personal financial software, presentation software, advanced use of spreadsheet, and continuation of safe internet use.

Personal Finance**Curriculum:** *Discovering God's Way of Handling Money* by Crown Ministries, *NEFE: High School Financial Planning Program* by National Endowment for Financial Education

This one-semester course is a practical guide to money management. Students will develop a budget, shadow someone working in an area that interests them, build a charitable giving portfolio, learn practical financial advice for everyday living situations, and learn how to set financial goals.

U.S. History**Curriculum:** *U.S. History* by Bob Jones University Press and *The Patriot Handbook* by George Grant, Highland Books

This two-semester course is a survey class with detailed and in-depth view into some areas of our America heritage and history. This course incorporates a definite Christian perspective and includes history and information that is generally left out of many secular texts.

1 General Elective (if Computer II requirement has already been met)**Please Note: Speech and Communications (will be offered 2011-2012 school year)**



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Curriculum and Course Descriptions

Senior Courses

2010-2011

Drama/Music

Drama

Curriculum: *Various drama materials*

Selecting from a variety of drama materials (including Christian selections), this one-quarter class includes exercises designed to promote creativity, spontaneity, teamwork, cold reading and audition skills. Each student will prepare a monologue and participate in a scene that will be presented to an audience. Theatre and television information and opportunities will also be discussed.

Music

Curriculum: *Spiritual Lives of Great Composers* by Patrick Kavanaugh and *Meet the Great Composers CD*

During this one-quarter class, students study the history of music and its composers, and the music from different periods of history. Ear training and sight-reading are practiced so students are able to harmonize with other parts of music. Students are required to participate in an end-of-semester performance.

Economics

Curriculum: *Economics* by Holt

This one-semester course explores how basic principles work in business firms, financial markets, and the government. Good citizens need familiarity with these principles so that they can make informed decisions about topics such as social security, national debt, and planned economic programs like public health care.

U.S. Government

Curriculum: *American Government* by Pensacola Christian College, ABeka

This one-semester course encourages a student's firm foundation in becoming a responsible, informed citizen of the United States. It promotes patriotism, teaches the constitution, and challenges the student to get involved in state and/or local government systems.

1 English Elective

1 Math Elective

1 Fine Arts Elective

1 General Elective



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Curriculum and Course Descriptions
English Electives - Offered to Juniors and Seniors
2010-2011

Honors Advanced Writing (English Elective)

Curriculum: *Teacher developed*

This two-semester course will encourage students to become creative and literate writers. The students will become adept at using the “Six Analytic Traits of Writing” (Organization, Voice, Word Choice, Sentence Fluency, Conventions, and Presentation) Writing assignments develop students writing skills in four different areas: Reader as a Writer, Writer as an Artist, Writer as a Researcher, and Grammatical structure as the artist’s tools for creating images. Students will create and maintain a writing portfolio including Narrative writing, Descriptive writing, a Writer’s Notebook, Story writing, Nonfiction Writing and Research writing.

British Literature (English Elective)

Curriculum: *Implications of Literature, Trailblazer Level* by Textword

This two-semester course will foster a deeper understanding of Christian ideologies and the Christian literacy tradition. The course will engender both creative and analytic skills, as well as facilitate a better understanding of literary movements and their underlying ideologies. The course will survey Anglo-Saxon, Medieval, Renaissance, Neoclassical, Romantic, and Modern Literature.



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Curriculum and Course Descriptions

Fine Arts Electives - Offered to Juniors and Seniors

2010-2011

Art I and II (Fine Arts Elective)

Curriculum: *Experiencing Art* by Dan Ellis

These one-semester courses involve personal projects and critique, encouraging students to interpret their world and translate their conclusions into graphic expressions. The students are also exposed to the various qualities and techniques of the following media: graphite, vine, and compressed charcoal, watercolor, ink with brush and pen, and relief printing.

Art Appreciation (Fine Arts Elective)

Curriculum: *Artistic Pursuits* by Brenda Ellis

This one-semester course utilizes samples of great works of art, encouraging the student to trace the development of painting in western art from the Middle Ages through the Twentieth Century. Students study the major movements and periods in terms of the social context of the times as well as aesthetic vocabulary through examination of master works.

Photography (Fine Arts Elective)

Curriculum: *Corel Draw Suite Version 8*

This one-semester course will begin by teaching the basics of good photography: composition, exposure, sensitivity, and lighting. Students will discover the function of the special features and automatic settings on digital cameras. Simple processing (including adjusting color levels, photo filters, clone tools, cropping, etc.) as well as more creative processing (layering, masking, cutting out, pasting in, and applying effects of various kinds) will also be covered.

Yearbook Design (Fine Arts Elective)

Prerequisite: Photography recommended

This one-semester course will serve two purposes: 1) To produce a quality yearbook for the Rock Solid High School. 2) To teach students introductory graphic design techniques and concepts through hands-on design experience of the yearbook as well as overseeing the completion of a large project from start to finish. Students will be involved in all aspects of producing the Yearbook, from photography, deciding on a theme, creating layouts for individual pages, and editing the final product. The class will primarily involve: taking of photographs to include in the yearbook, discussing and deciding on

Yearbook Design Continued

layouts/theme for the Yearbook, daily design and layout work on the Yearbook done using the Scribus computer software, and occasional lectures and outside work related to graphic design concepts. As such, we will not use a standard textbook-type curriculum, but will rather primarily have hands-on class periods with sporadic lectures. Homework for the class will mostly involve work on the Yearbook (taking pictures, working on specific page layouts, etc.).



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Curriculum and Course Descriptions
Math Electives - Offered to Juniors and Seniors
2010-2011

AP Calculus (Math Elective)

Curriculum: *Calculus: Graphical, Numeric, Algebraic* by Finney, Demana, Waits, & Kennedy (Foresman-Addison)

Pre-Requisite: Pre-Calculus

This weighted course includes the study of limits, derivatives, integrals, differential equations and their applications. The student is given the opportunity to learn to solve graphically, support numerically, confirm analytically, and solve algebraically, all while applying calculus to problem situations. Applications include rates of change, accumulated change, and physical, economic and social situations from a variety of fields including medicine, health, nature, economic, and physics.

Pre-Calculus (Math Elective)

Curriculum: *Pre-Calculus Graphing and Data Analysis* by Sullivan & Sullivan

Pre-Requisite: Algebra I, Algebra II and Geometry

This two-semester weighted course emphasizes mastery of topics and skills necessary for the student to transition successfully to higher mathematics. It provides a study of functions and their behavior utilizing a traditional approach mixed with liberal use of graphing utilities for visualizing and solving problems. Students are encouraged to discover whether a technological approach or a simple solution by hand would be a better choice. Linear, quadratic, polynomial, rational, exponential, logarithmic and trigonometric functions are addressed. Scatter diagrams are referenced throughout, providing the student with a sense of real-world situations requiring the identification and application of the appropriate function for a curve of best fit. Some time is spent in a discussion of analytic geometry including conics, parametric equations and their applications. Polar coordinates are introduced with an emphasis on graphing along with a discussion of vectors and vector operations. The course also touches on complex numbers and DeMoivre's theorem.

Introduction to Accounting (Math Elective)

Curriculum: *(to be determined)*

The prime objective of this one-semester course is to introduce students to the double-entry system of accounting for sole proprietorship, corporate, and partnership forms of business enterprises by using real-world applications and connections. Students will learn how to work with journals, ledgers, balance sheets, and income and capital statements. Development of personal and professional skills for school and work will be emphasized. The difference between the manual system of accounting and a computerized system will be covered.

Statistics (Math Elective)

Curriculum: *(to be determined)*

The purpose of this one-semester Statistics course is to develop the ability to think clearly, logically and critically within mathematical and non-mathematical situations. Students will acquire an understanding of probability and statistics through mathematical formulas, and the organization/examination of data. Students will apply probability and statistics concepts through class activities and projects.

Learning probability and statistics concepts will enable the student to maximize his/her knowledge in uncertain situations by using and evaluating existing data or by collecting and analyzing his/her relevant data. The skills acquired through the Statistics course will foster the development of the critical thought required for the high-tech, media-oriented world in which we live and enable the student to become a skillful and cautious decision maker.



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Curriculum and Course Descriptions
Electives - Offered to Juniors and Seniors

2010-2011

Honors Advanced Biology (Elective)

Curriculum: *Biology – A Search for Order in Complexity* by Christian Liberty Press

Pre-Requisite: Biology

The science of Biology is a search for order in the complexity of living things. This one-year honor course will discover the underlying principles which describe the orderly processes from a Christian World View.

This course is for students with a future interest in the medical field. The course encompasses scientific method, biochemistry, cell structure and function, biotechnology, genetics, anatomy and physiology, taxonomy and behavior. There are several labs and dissections included in this course.

Physics (Elective)

Curriculum: *Conceptual Physics* by Addison Wesley

Pre-Requisite: Algebra I

This two-semester course is designed to study the application of the laws of Physics in everyday life. The student will be encouraged to discover God's natural laws. Some of the topics covered include: Mechanics, Newton's Laws of Motion, Properties of Matter, Heat, Sound and Light, Electricity and Magnetism, and Atomic and Nuclear Physics.

Spanish III (Elective)

Curriculum: *Spanish III* by Bob Jones University Press

Pre-Requisite: Spanish I and II

This two-semester course makes use of the two previous years of Spanish. Speaking and communicating is emphasized in the program. Some videos are utilized in class for the purpose of enhancing listening and understanding skills within a variety of Spanish-speaking situations. Occasional off-campus opportunities to practically utilize Spanish skills may be offered (Mexican restaurant, market, etc.).

Honors Spanish IV (Elective)**Curriculum:** *Conexiones* by Pearson Prentice**Pre-Requisite:** Spanish I, II, and III

This two-semester honors course will include weekly tasks of reading, listening, speaking or composition. Each student will give two presentations (one per semester) on a topic assigned by the teacher. This is a class of conversation in Spanish, which requires knowledge of the language at an intermediate level. The course includes the reading and discussion of poems, stories, videos, and current news. Students will play games, put on a play, make recipes, etc. Occasionally, students will listen to Hispanic music on CD, learn songs, and practice Spanish in public places such as restaurants, Latin grocery stores, Spanish book area at the Bemis Library. The objective is to facilitate conversation in Spanish through participation in an interactive and enjoyable environment.