

## LCCS High School Course Descriptions 2011

### **Bible**

#### **Principles of Bible Study (Grade 9) Full Year, 1 credit**

Principles of Bible Study is an inductive approach to Bible study method. Students learn skills for background study followed by observing, interpreting, and applying scripture. Students learn exegesis and hermeneutical principles. Personal transformation is in view as students encounter the depth of God's word in its original context and in its integration into contemporary context. This course lays the foundation for a Biblical worldview based in Biblical theology.

#### **Church History and Doctrine (Grade 10) Full Year, 1 credit**

Church History and Doctrine is a survey of leaders, movements, and the development of theology throughout the history of the church. Students learn the core doctrines of systematic theology and the origins of heresies. Doctrinal study includes topics such as the knowledge of God, the Holy Trinity, creation, the nature of man, sin and evil, the covenants of God, the person and work of Jesus Christ, and the Church's mission.

#### **Old Testament Survey (Grade 11) Full Year, 1 credit**

Old Testament Survey focuses on the story of God recorded in the Law, Prophets, and Writings of the Old Testament. Students learn key themes in the context of the Old Testament story with a view toward the fulfillment written about in the New Testament. Students develop exegetical skills by studying the various genres in the Old Testament. The Kingdom of God is studied as the foundation of Biblical theology, a Biblical worldview, and the integration of salvation into daily life.

#### **Honors Old Testament Survey (Grade 11) Full Year, 1 credit**

Honors Old Testament Survey is an advanced course for eleventh grade based on the Old Testament Survey course. Students engage in higher level exegetical analysis and discussion. It is weighted like the other honors courses.

#### **New Testament Survey (Grade 12) Full Year, 1 credit**

New Testament Survey focuses on the story of God recorded in the Gospels and Letters of the New Testament. Students will learn key themes in the New Testament story with a view toward the fulfillment found in Jesus, the growth of His Church, the hope of the resurrection, and the hope of a new heaven and new earth. Students develop exegetical skills by studying the various genres of the New Testament. The Kingdom of God is studied as the foundation of Biblical theology, a Biblical worldview, and the integration of salvation into daily life.

#### **Honors New Testament Survey (Grade 12) Full Year, 1 credit**

Honors New Testament Survey is an advanced course for twelfth grade based on the New Testament Survey course. Students engage in higher level exegetical analysis and discussion. It is weighted like the other honors courses.

## **Computer Technology**

### **Computer Graphics 1 semester, .25 credit**

Computer Graphics is an intermediate level course on creating digital images using Adobe Photoshop and Illustrator.

Prerequisite: computer competence

### **Web Page Design 1 semester, .25 credit**

Web Page Design provides students with web page development skills. Students learn to write code manually and use web page authoring software to create standards-based web sites.

Prerequisite: computer competence

### **Videography 1 semester, .25 credit**

Videography will introduce the basic methods and techniques of videography. Topics to be covered will include camera operation, video composition, script writing, storyboarding, location scouting, and set design and lighting. Students will learn video editing with Adobe Premiere and motion graphics and compositing techniques in After Effects. The student will be required to produce individual videos as well as participate in cooperative productions.

Prerequisite: computer competence

### **Morning Announcements 1 semester, .25 credit**

Morning Announcements an applied videography course in which students use videography and motion graphics skills to produce morning announcements to be viewed in-house by students and posted on the Internet. Students will learn and refine video production skills and be introduced to digital signage techniques.

Prerequisite: computer competence

### **Yearbook Photography (Grades 9-12) Full Year, .5 credit**

Yearbook Photography is a full-year course that requires students to be committed to taking quality pictures at school functions both inside and outside of school hours. Outside school functions include sporting events and class trips.

### **Yearbook Editor (Grades 11-12) Full Year, 1 credit**

Yearbook Editor a full-year course commitment. The yearbook editor must be dedicated to creating a quality, published yearbook for LCCS. This student must have good people skills, as they will constantly be working with and motivating the yearbook staff. This student must have an excellent work ethic, as well as high competence in writing.

### **Yearbook Journalism (Grades 9-12) Full Year, .5 credit**

Yearbook Journalism is a full-year course that requires students to create pages for the high school yearbook. Students must have proficient understanding of computer software. Students must also have a competent grasp on writing, as yearbook journalism requires students to write both captions and blurbs featured on the published yearbook pages. Students do a lot of work independently, so students must be self-motivated.

## **Consumer Science/Home Economics**

### **Basic Culinary 1 semester, .25 credit**

Baking class start with basics about baking, such as how to make cookies and cakes; the course will progress to an understanding of how to make pies and pastries. The students also learn to make sweet and yeast breads. If time permits, the class could experiment with different types of baking, such as campfire baking. While waiting for the results to come out of the oven, students learn how these treats can be a nutritious part of the daily diet. There is a fee for this course.

### **Costume Design 1 semester, .25 credit**

Students learn about costume design, costume construction. They also learn the role of a production costumer. Through the study of clothing from one or more time periods, students will produce a costume layout for the main and supporting characters in a play. They learn how to utilize color and design to maximize dramatic effect on stage. Students find out why Goodwill and Salvation Army are a costumer's best friend. Sewing skills learned will vary, depending on the student's previous experience. Students are expected to supply a basic sewing kit, colored pencils, and a simple sketch book.

### **Child Development 1 semester, .25 credit**

Students study the development of the child from birth through age 5. They learn what makes them 'tick' at each stage of development. Students develop a resource book of activities, stories, games, and songs for each developmental stage. Opportunities to observe and work with children in each developmental stage are available throughout the course.

### **Nutrition 1 semester, .25 credit**

Students study the nutritional needs of the body in daily living. They look at current and past diet trends, comparing them with the body's nutritional needs. Students find out about the short and long-term effects of food choices. This course includes some cooking.

## **Fine Arts**

### **Music**

#### **High School Band Full Year, .5 credit**

The high school band is open to all instrumentalists in grades 9-12. The band rehearses three class periods a cycle and requires a one-year commitment on behalf of the students. The band performs repertoire including concert marches, sacred selections, arrangements of popular tunes and standard quality band repertoire in a variety of concerts and performing venues throughout the year. Students are encouraged to study with a private teacher in addition to playing in band. Students have the opportunity to audition and participate in the LLMEA and PMEA District 7 Festival Bands.

#### **High School Choir Full Year, .5 credit**

The high school choir is open to all singers in grades 9-12. The choir rehearses three class periods a cycle and requires a one-year commitment on behalf of the students. Time is

devoted to learning, demonstrating and strengthening good vocal habits, correct posture, accurate diction, as well as performing a variety of musical styles and genres. The choir performs in concerts throughout the year. Students are encouraged to study with a private voice teacher outside of choir. Students have the opportunity to audition and participate in the LLMEA and PMEA District 7 Festival Choirs.

### **High School String Ensemble Full Year**

The high school string ensemble currently meets to rehearse one period per week. Students perform select ensemble music for Christmas, the spring concert, and outside playing events as opportunities arise. Students should have at least 3 - 4 years of string instruction, able to play in 1 – 5 position, and use some vibrato in their playing. Students are encouraged to take private lessons outside of school in order to spend time in school working strictly on ensemble/string orchestra music. Students are given the opportunity to audition and participate in the LLMEA and PMEA District 7 Orchestra Festivals. This ensemble includes violin, viola, cello, and string bass students.

### **Music Theory I (No prerequisite) Full Year, .5 credit**

This class meets 3 times a cycle for one year. Class time is devoted to the identification, reconstruction, and application of the following music elements and skills: note/rest values, melodic/rhythmic dictation, tonality analysis, ear training, composition, and chord progression analysis.

### **AP Music Theory (Prerequisite: Music Theory I) Full Year, 1 credit**

This course builds upon Music Theory I course and is designed for students who intend to pursue a career in music as well as those who desire enrichment in musical understanding. This class requires 6 periods a cycle for a full school year (some of those periods are designed as independent study.) Class time is comprised of lecture/discussion, analysis/application, sight-singing, ear training, listening and composition activities. Because this course has been approved by the National AP College Board, students are encouraged to take the AP Music Theory exam at the end of the semester for college credit.

### **Guitar - (No prerequisite) 1 semester, .25 credit**

Guitar class is beginning classroom instruction in guitar. Concepts include: technique, instrument structure, care, tuning, music reading, tablature, chord symbols, strumming accompaniment, singing while playing guitar, basic theory, group performance. Possible clinics include: instruction in guitar purchase, guitar i-pod applications, and use of effects pedals. This class will prepare the student using God-honoring music in the worship, classical, and folk music traditions.

## **Visual Arts**

### **Art Theory (Grades 9-12) Full Year, .5 credit (prerequisite to all art courses)**

The Art Theory elective course increases a student's understanding of the elements of art and the principles of design. Art Theory is a studio-based art course that gives students an early opportunity to evaluate their interests in the visual arts. This semester elective course provides the student with a background in preparation for two-dimensional and three-dimensional design.

Students are required to complete this course as a prerequisite for all other Art Electives, except Photography. It may also be taken in conjunction with another Art Elective.

**2D Design (Grades 9-12) 1 semester, .25 credit, Prerequisite: Art Theory**

The 2D Design semester elective course provides the student with a background in two-dimensional design. Students are encouraged to creatively solve art and design problems. Drawing, painting, printmaking, and mixed media are areas of exploration. Emphasis is on learning to look more carefully at art work and enhance drawing skills by exploring many techniques and media. Students explore acrylic painting and watercolor painting; they will gain an understanding of color theory in their assignments. In addition, students complete some sketchbook assignments.

**3D Design (Grades 9-12) 1 semester, .25 credit, Prerequisite: Art Theory**

This course focuses on sculptural form and personal expression. Students study both organic forms and geometric forms, using a variety of materials to create artwork. Emphasis is on Composition and self-expression. Homework will include sketches/sketchbooks. Class participation includes peer, teacher, and self-critiques. This class is for students to focus on the elements and principles of design while they focus on small sculpture, which may include jewelry/wearable art as well.

**Ceramics I / Ceramics II / Ceramics III (Grades 9-12) 1 semester, .25 credit, Prerequisite: Art Theory**

This course gives students opportunities in basic construction, yet it will allow personal expression within assignments. Students develop an appreciation of ceramic art through discussion and analysis of each other's work and ceramics in a historical context. At the advanced levels of Ceramics, students will be encouraged to further their ceramic knowledge and creativity through more technically and contextually challenging assignments. Students are expected to bring their prior knowledge learned in Introduction to Ceramics. Sketchbooks are required. Sculptural and functional works are the focus of this course. Students have an opportunity to experience wheel throwing at a very basic level in this course. (Advanced students may register during the Beginning Ceramics class time slot.)

**Studio Art/Portfolio Preparation (Grade 12) 1 semester, .25 credit, Prerequisite: Art Theory, Teacher Approval**

Studio Art/Portfolio Preparation is designed for advanced art students to be able to investigate their art independently. It is a studio class for students to work on portfolio pieces and/or develop their individual artistic strengths. It is an opportunity for students to focus on their artistic study and investigate their chosen medium. Projects are developed with teacher and student input.

**Digital Photography (Grades 9-12) 1 semester, .25 credit**

Photography teaches students to move from taking snap-shots to taking photographs as an artistic tool. Emphasis is on Composition as students experience a wide variety of assignments. Students learn the elements and principles of design, along with basic camera and editing skills. Students complete a test on the elements and principles of design. Class participation includes peer, teacher, and self-critiquing. Students will need to take photos outside of class. Students must have their own digital point-and-shoot camera.

**Advanced /Darkroom Photography (Grades 9-12) 1 semester, .25 credit, Prerequisite:  
Digital Photography**

In Advanced Photography, students are encouraged to express themselves through their artwork and to develop their own style as they further their digital camera and editing knowledge/skills. Students learn how to use an SLR camera and further their knowledge of how cameras operate. Students use the lighting studio and the darkroom, use professional black and white film, and process their own film and enlargements. This class is for students to develop continued artistic growth in photographic composition and to develop artistic maturity using photographic media. Prerequisite: successful completion of the Beginning Photography course

**Foreign Language**

**Spanish 1**

Students develop an understanding of the grammar, syntax, and usage of the Spanish language in oral and written form. Students learn to converse and write simply about themselves and others using skits and dialogues; they also learn cultural events of Spanish-speaking countries. Students recite simple Bible verses.

Textbook: ¡Ven Conmigo! 1

**Spanish 2**

Students continue to develop an understanding of the grammar, syntax, and usage of the Spanish language in oral and written form. They learn to converse and write in more complex forms about more varied activities using dialogues, skits, and puppets. They complete a cultural study of a Spanish-speaking country. Students learn to recite more advanced Bible verses.

Prerequisites: Spanish 1

Textbook: ¡Ven Conmigo! 2

**Spanish 3**

Students develop a deeper understanding of the grammar, syntax, and usage of the Spanish language in oral and written form. Students learn to talk about, write about, and present Bible stories, fairy tales, and an in-depth study of Mexico. They learn to say prayers, including the Lord's Prayer.

Prerequisites: Spanish 2

Textbook: ¡Ven Conmigo! 3

**Spanish 4**

Students continue in their comprehension of the grammar, syntax, and usage of the Spanish language in oral and written form. Students learn to converse and write more creatively. Students complete an in-depth study of Spain, including its history, culture, art, poetry, and literature. Students create a newspaper in Spanish.

Prerequisites: Spanish 3

Textbook: *Galería de Arte y Vida*

### **Latin I (Grades 11, 12) Full Year, .5 credit**

Latin I introduces students to the study of Latin. The course focuses on the study of Latin grammar and vocabulary for the purposes of translating Latin passages, expanding the students' English vocabulary, and developing their thinking skills.

Textbook: *Jenney's First Year Latin*

## **Industrial Technology**

### **Hand Tools (Grades 9-12) 1 semester, .25 credit**

Hand Tools re-introduces high school students to creating wood projects by using only hand tools. Students are taught to incorporate basic wood joining and carving skills, as well as basic hand tool use.

### **Beginning Architecture and Set Construction (Grades 9-12) 1 semester, .25 credit**

Students are introduced to basic carpentry skills necessary for the creation of theater sets and flats. The ultimate goal includes participation in set construction for various school theater productions.

### **Wood Shop (Grades 9-12) 1 semester, .25 credit**

Wood shop classes for the high school student focuses on developing wood working skills that could lead to a lifetime hobby. Students are encouraged to create individually planned and executed projects at increasingly higher levels of skill. Students also have the opportunity to learn of appropriate finishing techniques for their projects.

### **Metal Shop (Grades 9-12) 1 semester, .25 credit**

Metal Shop includes both basic and more advanced instruction for students with prior experience. Areas of instruction could include sheet metal, soldering, hot metal forging and casting, and art metal work in brass, copper, aluminum, and pewter.

## **Language Arts**

### **Foundations of English (Grade 9) Full Year, 1 credit**

Foundations of English exposes students to the major literary genres: poetry, drama, the short story, and the novel. Grammar studies include parts of speech, parts of sentences, phrases, and clauses. Vocabulary study is emphasized beyond literary context through biweekly vocabulary units of fifteen words each. Writing skills in the four major modes are developed.

Textbooks: *Adventures in Appreciation*; *Writing and Grammar 9*; *Vocabulary from Classical Roots (C)*

### **American Literature (Grade 10) Full Year, 1 credit**

American Literature focuses on the works and authors of American literature and their relationship to American history. Grammar studies include correct usage. Vocabulary study is

emphasized beyond literary context through biweekly vocabulary units of fifteen words each. Writing exercises center on the research paper.

Textbooks: *Elements of Literature: Essentials of American Literature*; *Heath Grammar and Composition: Fourth Course*; *Vocabulary from Classical Roots* (D)

### **Honors American Literature (Grade 10) Full Year, 1 credit**

Honors American Literature adds a major component in the literary essay to American Literature (Grade 10).

Textbooks: *Elements of Literature: Essentials of American Literature*; *Heath Grammar and Composition: Fourth Course*; *Vocabulary from Classical Roots* (D)

### **British Literature (Grade 11) Full Year, 1 credit**

British Literature focuses on representative selections of British literature from the Old English, Middle English, and Modern English periods and their relationship to British history. Vocabulary study is emphasized beyond literary context through biweekly vocabulary units of fifteen words each. Writing exercises center on the extended research paper.

Textbooks: *Elements of Literature: Essentials of British and World Literature*; *Vocabulary from Classical Roots* (E)

### **Advanced Placement Literature and Composition (Grade 11) Full Year, 1 credit**

Advanced Placement Literature and Composition focuses on the careful reading and critical analysis of imaginative literature. Students sharpen their awareness of language and their understanding of the writer's craft. They develop critical standards for the independent appreciation of a literary work. They also learn to consider works of English literature in their historical context. Writing assignments focus on the critical analysis of literature and include expository, analytical, and argumentative essays.

Textbooks: *Literature: Structure, Sound, and Sense*; *Beowulf and Related Meanings*; *The Canterbury Tales: Selected Works and Related Meanings*; *Macbeth: Comprehension, Analysis, Composition*; *Vocabulary Energizers II*

### **Christian Literature and Composition (Grade 12) Full Year, 1 credit**

Christian Literature and Composition focuses on the Christian classics from Augustine to C. S. Lewis. The course also includes an in-depth reading of *Hamlet*. Vocabulary study beyond literary context is emphasized through weekly vocabulary units of ten words each. A daily grammar review refines previously learned skills and knowledge. Writing exercises center on the SAT essay and the five-paragraph expository essay. One major culminating research paper is assigned.

Textbooks: *The Roar on the Other Side: A Guide for Student Poets*; representative novels and short stories; *Hamlet*; *Vocabulary for Achievement: Sixth Course*

### **Advanced Placement: Language and Composition (Grade 12) Full Year, 1 credit**

Advanced Placement Language and Composition focuses on guiding the students in the development of their own writing styles. Students study the discipline of writing and also study a number of essays from different historical periods. Students learn to write well-constructed essays in a number of rhetorical modes. Students complete an extended research paper.

Textbooks: *Writing Well*; *Short Takes: Model Essays for Composition*; *Vocabulary Energizers*

## **Mathematics**

### **General Mathematics (Grade 9) Full Year, 1 credit**

Students study some basic concepts of mathematics, including factors, ratios, fractions, and decimals. In learning the concepts, mental math skills will be emphasized. Students simplify fractions using factors and divisibility rules. They work with whole number, fractions, decimals, and integers. Ratio, proportion, and percent are used in equations. Students are introduced to geometric concepts, metric and customary measurement. They work with graphs in data analysis. There is an introduction to algebra and solving equations. A basic calculator is required.

### **Pre-Algebra (Grades 9, 10) Full Year, 1 credit**

Students learn number operations, order of operations, graphing, and geometry. In learning the concepts, mental math skills are emphasized. Students work with decimals and fractions, including place value and renaming decimals and percents. Divisibility rules and factoring are used in simplifying fractions and rational numbers. Solving equations incorporate using fractions, decimals, and integers. Ratios, proportions, exponents, square roots, and the Pythagorean Theorem are also introduced. A basic calculator is required.

Textbook: *PreAlgebra (AGS Publications, 2004)*

### **Algebra 1 (Grades 9, 10) Full Year, 1 credit**

Algebra 1 reviews properties of numbers and solving basic equations, inequalities, and proportions. Graphs of linear, quadratic, and exponential equations are introduced and reviewed. Students write equations of lines. They also solve systems of equations using algebra and graphing. Exponent rules are reviewed. Factoring polynomials leads to solving quadratic equations. Students simplify radical expressions and solve equations. Students work with rational expressions, their graphs, and solving equations with rational expressions. A scientific calculator is required.

Textbook: *Algebra 1 (Prentice Hall, 2011)*

### **Algebra 2 (Grades 9, 10, 11) Full Year, 1 credit**

A review of Algebra 1 skills begins the Algebra 2 course, including equations, inequalities, systems of equations, and quadratic equations. Matrices are introduced and used to solve systems of equations. Solving polynomial, radical, and rational exponential functions incorporates factoring and graphing concepts. Exponential functions are reviewed and used to introduce logarithms. The conic sections are both reviewed (circles and parabolas) and introduced (ellipses and hyperbolas). Sequences and series are used to write functions. Periodic functions and

trigonometric ratios incorporate solving trigonometric equations and the use of identities along with their graphs. A graphics calculator is required (TI-83 or TI-84).

Textbook: *Algebra 2 (Prentice Hall, 2004)*

### **General Algebra 2 (Grades 11, 12) Full Year, 1 credit**

General Algebra 2 is the regular Algebra 2 course at a slower pace. A review of Algebra 1 skills begins the Algebra 2 course, including equations, inequalities, systems of equations, and quadratic equations. Matrices are introduced and used to solve systems of equations. Solving polynomial, radical, and rational exponential functions incorporates factoring and graphing concepts. Exponential functions are reviewed and used to introduce logarithms. Sequences and series are used to write functions. An introduction to periodic functions and trigonometric ratios is included. A graphics calculator is required (TI-83 or TI-84).

Textbook: *Algebra 2 (Prentice Hall, 2004)*

### **Geometry (Grades 10, 11, 12) Full Year, 1 credit**

Students study logic and reasoning in writing proofs. They also graph and write equations of lines. Proportions and scale drawings are reviewed. Right triangle trigonometry is used to find sides, angles, and area of regular figures. Properties of quadrilaterals are reviewed. Surface area and volume are emphasized. Tangents and circles are introduced. Transformations stress how a figure changes visually. A scientific calculator is required.

Textbook: *Geometry (Prentice Hall, 2011)*

### **Pre-Calculus (Grades 11, 12) Full Year, 1 credit**

Pre-Calculus is a rigorous review of Algebra 2 with an introduction to Calculus concepts to finish the course. Polar coordinates, complex number, parametric equations, and combinatorics are introduced within the material. A graphics calculator is required (TI-83 or TI-84).

Textbook: *Advanced Mathematical Concepts: Precalculus with Applications (Glencoe, 2004)*

### **Advanced Placement Calculus AB (Grade 12) Full Year, 1 credit**

In Calculus AB, students learn differentiation, limits, infinite series, and integration. Techniques for differential and integration for logarithmic, exponential, and other transcendental functions is also included. Use of algebra skills is a core component to all topics taught. A significant amount of time focuses on practicing for the AB Advanced Placement exam in early May. A graphics calculator is required (TI-83 or TI-84).

Textbook: *Calculus of a Single Variable 7<sup>th</sup> Edition (Houghton Mifflin, 2002)*

**Practical Math (Grade 11) Full Year, 1 credit**

Practical Math focuses on the application of mathematics to finances. The course teaches students how to make a budget and work with paychecks. It also focuses on banking and saving, housing, and vehicles. A basic calculator is required.

*Textbook: Practical Mathematics for Consumers (Globe Fearon, 2004)*

**Personal Finance (Grade 12) Full Year, 1 credit**

Personal finance reviews how money impacts life. Shopping, buying food, buying and maintaining an automobile and traveling are discussed. Creating a budget, choosing a bank, and filing taxes are reviewed. Projects and discussion are a key component to this course. A basic calculator is required.

*Textbook: Consumer Mathematics (Globe Fearon, 2004)*

**Physical Education****Cross Fitness Training 1 semester, .25 credit**

The emphasis of Cross Fitness Training is on total body fitness, as opposed to only gaining muscle and lean mass. Students practice and train lifts such as dead lifts, squats, presses, and rows. They also do body weight exercises, such as pull-ups, dips, and pushups. Students run and do various cardiovascular routines and stretching exercises.

**Girls' Fitness 1 semester, .25 credit**

Girls' Fitness is similar in content to Cross Fitness Training. Girls' Fitness is at a lower level of intensity and includes more stretching and Pilates work.

**Beginner Weight Training 1 semester, .25 credit**

Students in Beginner Weight Training are taught how to use a weight room and develop a lifting/exercise program to accomplish personal goals. They are taught the techniques for lifting safely while they learn how different lifts and exercises affect specific body parts. After extensive teacher-led instruction, they develop and monitor their own personal training program.

**Advanced Weight Training 1 semester, .25 credit**

Advanced Weight Training is primarily student initiated. Students develop and implement a personal program to later workout under teacher supervision.

**Prerequisite:** Beginner Weight Training or permission from instructor

**High School Physical Education Full Year, .375 credit**

Students perform fitness work that takes into account the five major aspects of physical fitness: strength, muscular endurance, cardiovascular health, flexibility, and body composition. The standards of the Presidential Committee of Physical Fitness are used for physical fitness testing. Students also practice sport skills that cover hand-eye and foot-eye coordination, while learning the ideals of working as a team and trying one's best. Students learn sports that they can play throughout their lives, including sports from other countries.

**Health (Grade 11) Full Year, .5 credit**

Health covers nutrition, eating disorders, drug and alcohol abuse, problem solving, and personal care and appearance. The class utilizes discussion groups, student presentations, videos, outside speakers, and essays to facilitate learning.

**Science****Physical Science (Grade 9) Full Year, 1 credit**

Physical Science provides an introductory study of physics and chemistry with both hands-on learning activities and laboratory experiences. Physics topics include motion, speed, acceleration, forces, Newton's Laws, thermodynamics, and waves. Chemistry topics include atoms, elements, chemical bonds, chemical reactions, solutions, and mixtures.

Textbook: *Science Spectrum Physical Science, Holt Publisher 2006*

**Honors Physics (Grade 12) Full Year, 1 credit Prerequisite: Enrollment in or successful completion of Pre-Calculus**

Honors Physics covers a variety of physics topics, such as the mechanics of motion, forces, various types of waves, fluid mechanics and buoyancy, and projectile motion. Students must have the ability to use geometry concepts and will be expected to complete problems using various types of physics laws in the form of equations. Students have the opportunity to complete experiments and activities designed to enhance the physics experience and develop their proficiency at writing lab reports.

Textbook: *Active Physics, Its About Time Publisher 2010*

**Environmental Science (Grade 12) Full Year, 1 credit**

Environmental Science focuses on the interactions between the physical environment and living things from a human perspective. This course has three main foci: natural resources, natural disasters, and easily misunderstood current topics (global warming, environmental movement, carbon footprint, etc.) Students study these topics from a creation-based perspective.

Textbook: *Environmental Science (Jane L. Person, 2007)*

**Applied Chemistry (Grades 11, 12) Full Year, 1 credit**

Applied Chemistry is a study of chemistry geared to an understanding of everyday concepts and uses. Students learn basic chemistry concepts about atoms, chemical bonds, periodic law, chemical reactions, acids and bases, stoichiometry, and gas laws. Students participate in hands-on experiments based on the concepts about everyday chemistry.

Textbook: *Chemistry, (Pearson Globe, 2007)*

**College Preparatory Biology (Grades 9, 10) Full Year, 1 credit**

In College Preparatory Biology, students study living portions of God's creation. They learn to recognize characteristics of life and understand basic life processes and structures. Students

study the movement of energy through ecosystems and identify how organisms interact with each other and with their environment. Students also explore Biblical stewardship as they learn how man impacts the environment.

Textbook: *Johnson and Raven. Biology (Holt, Rinehart and Winston, 2006)*

### **Advanced Placement Biology (Grades 11, 12) Full Year, 1 credit**

Advanced Placement Biology is a further study of Biology concepts that is designed to be like a college course in its pacing and depth. Emphasis will be placed on cell biology, genetics, and God's design of living systems. Laboratory activities comprise at least one-third of classroom time.

Textbook: *Campbell, Reece. Biology (Pearson, 2008)*

### **College Preparatory Chemistry (Grades 10, 11, 12) Full Year, 1 credit**

College Preparatory Chemistry is designed to give college-bound students a solid understanding of a wide range of chemistry concepts. Chemistry is the study of matter; we explore how it has been designed by God and how it undergoes changes. Students study these reactions at the subatomic, atomic, molecular, and system levels. Topics include formulas, reaction types, bonding, stoichiometry, and a study of gas laws.

Textbook: *World of Chemistry (McDougal Little, 2002)*

### **Honors Chemistry (Grades 11, 12) Full Year, 1 credit**

Honors Chemistry is a course designed for students with a strong mathematical background and a desire to study chemistry concepts at a higher level. Students interested in a scientific career should strongly consider this course. Chemistry is the study of matter; we explore how it has been designed by God and how it undergoes changes. Students study these reactions at the subatomic, atomic, molecular, and system levels. Topics include formulas, reaction types, bonding, stoichiometry, and a study of gas laws.

Textbook: *Dingrando, et al. Chemistry: Matter and Change, (Glencoe McGraw-Hill, 2002)*

### **Science Fair 1 semester, .25 credit**

The Science Fair elective provides the opportunity for students to develop a science fair project. Major components of the class include topic selection, literature review, experimental design, data analysis, and report writing.

### **Senior Seminars**

#### **Senior Seminar - Fine Arts and Society 1 semester, .25 credit**

The course examines select historical periods of art and music and the corresponding societal influences during those times. Various forms of media including slide lectures, films, music, and studio assignments will be used to present these fascinating ideas. Students will come to understand how the history of art and music was, and is, directly influenced by natural, historical, economical, political and cultural forces, and how the arts influence society.

**Senior Seminar: Issues in Modern European History (Grade 12) 1 semester, .25 credit**

Students explore major themes in European history from the Enlightenment to the present. Topics and issues include science, religion, imperialism, militarism, the Cold War, communism, socialism, liberal democracy, and relations with the United States.

**Senior Seminar: Marine Science 1 semester, .25 credit**

Senior Seminar Marine Science is a bridge course between high school and college work that focuses on the biotic and abiotic components of the marine environment. The course includes lecture and laboratory components, as well as a regular survey and analysis of current literature in the field. There is a possible overnight field trip in the spring.

Textbook: *Williams, Carol. Marine Biology and Oceanography (Teaching Point, 2009)*

**Senior Seminar: Shakespeare (Grade 12) 1 semester, .25 credit**

Senior Seminar: Shakespeare focuses on the in-depth study of two plays from Shakespeare's canon. Students study the text, view film adaptations, attend live performances, and perform scenes in front of their peers. Students present a multimedia interpretation of one play and write a series of critical analyses.

Textbooks: *Two of the following: Much Ado About Nothing; Henry V; Romeo and Juliet; A Winter's Tale*

**Senior Seminar: World Religions and Philosophy (Grade 12) 1 semester, .25 credit**

World Religions and Philosophy explore the beliefs of the world's major religions, including major philosophies that have shaped global societies. Students learn how to evaluate and address world religions and philosophies from a Christian perspective.

**Social Studies**

**Modern World History (Grade 9)**

Students learn modern world history from a chronological approach regarding various time periods and a thematic approach, such as empire building, imperialism, the Cold War, world wars and developing nations. The course begins with the Renaissance and concludes with current world history. A biblical world view is emphasized.

Textbook: *World History, The Modern Era (Prentice Hall)*

**College Preparatory United States History III (Grade 10)**

College Preparatory United States History III continues American studies as a rebirth of the nation following the Reconstruction Era. The course studies the conflicts and events which defined our higher purpose and culminate with current U.S. history topics.

Textbook: *The American Vision, Modern Times (Glencoe)*

### **Honors United States History III (Grade 10)**

The honors level class provides comprehensive instruction, including western migration and Manifest Destiny, the wars which propelled the United States to world status, and the economic crisis confronting us today. Students research and write with a focus on critical thought processes.

Textbook: *The American Vision, Modern Times (Glencoe)* selected readings.

### **Economics (Grade 11)**

Economics introduces concepts with modern application through text, activities, case studies, and visiting guests. The course is designed to provide students with a working knowledge of basic economics as it applies to the realms of person, home, and business. An ethics approach to decision making is stressed. Students gain an understanding of Christian economics as flowing from the heart of man outward.

Textbooks: *JA Economics; Junior Achievement, Student Study Guide.* Selected readings.

### **Advanced Placement United States History (Grade 11)**

Advanced Placement United States History is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with the problems and documents in United States history. Students engage in significant primary document research, analytical writing, and preparation for the AP U.S. history examination.

Textbooks: *The American Pageant, A History of the American People, (Wadsworth Cengage Learning)* *The American Spirit, vols. 1&2, (Wadsworth Cengage Learning)*

### **College Preparatory Government (Grade 12)**

College Preparatory Government teaches students the fundamental principles upon which our government is based. Through the use of decision-making activities, debates, Supreme Court case studies and relevant stories of average Americans, the course stresses the importance of citizenship and duty as American citizens.

Textbook: *United States Government, Democracy in Action (Glencoe)* Selected readings.

### **Advanced Placement Government and Politics (Grade 12)**

The goal of Advanced Placement Government and Politics is to provide students with the equivalent of a college-level introductory course in American government and politics. Students engage in significant primary document research, analytical writing, and preparation for the AP U.S. Government and Politics examination.

Textbooks: *American Government, Readings and Cases, 18<sup>th</sup> (Longman Publishing)*  
*Government By the People: 2009 National Edition (Longman Publishing)*

### **Senior Seminar: Issues in Modern European History (Grade 12)**

Students explore major themes in European history from the Enlightenment to the present. Topics and issues include science, religion, imperialism, militarism, the Cold War, communism, socialism, liberal democracy, and relations with the United States.

Textbooks: *Themes in Modern European History (1890-1945)* (Routledge Publishing)  
*Themes in Modern European History (Since 1945)* (Routledge Publishing)

### **Senior Seminar: World Religions and Philosophy (Grade 12)**

World Religions and Philosophy explore the beliefs of the world's major religions, including major philosophies that have shaped global societies. Students learn how to evaluate and address world religions and philosophies from a Christian perspective.

Textbooks/Selected Readings: *Mere Christianity* by C.S. Lewis (Harper One Publishing)  
*That Hideous Strength* by C.S. Lewis (Scribner Publishing)  
*Jesus Among Other Gods* by Ravi Zacharias (Thomas Nelson Publishing)

### **Other Courses**

#### **Directed Studies (Grades 9-12) Full Year, 1 credit (Assisted Learning Enrollment Form and fee required)**

The Directed Studies class is a for credit class designed to provide instructional assistance to students in grades 9 through 12 who struggle to achieve success in the regular classroom. The class is designed to help students master content area classes, while developing necessary study and organizational skills. Students enrolled in the course are eligible for individualized accommodations.

#### **Dual Enrollment with HACC (Grade 12) Time and credits vary; additional fee involved**

LCCS has an agreement with HACC for seniors to take courses at the HACC campus and receive both college and high school credit for the courses. Contact the College and Career Office for more information.

#### **Freshman Seminar (Grade 9) Full Year, .5 credit**

Students engage in career exploration and learn computer competency in this required freshman course. They begin to develop their culminating project/online portfolios.

#### **Online Courses (Grade 12) (Time and credits vary, additional fee involved)**

Students may earn high school credits to transfer to Lancaster County Christian School through Keystone National High School or Sevenstar Academy. These courses are 180 hours of instructional time or 1 hour a day, 5 days a week. A full credit is given when the work is completed. Prices range from \$209.00 to \$369.00. The following courses are offered by Keystone at the high school level: Business Writing, Creative Writing, Trigonometry, Earth Science, Civics, Geography, Sociology, Lifetime Fitness, Nutrition and Wellness, Art and Music Appreciation, Fine Art, Chinese (Mandarin) 1, Chinese (Mandarin) 2, French 1 through 4, German 1 through 4, Japanese 1 and 2, Latin 1 and 2, Accounting, Business Law, Career

Planning, Driver Education, Game Design, Marketing, Programming—Visual Basic and Java, AP Art History, AP Computer Science A, AP Economics, AP European History, AP World History, AP Statistics, AP Chemistry, and AP Physics B. Sevenstar Academy has more than 70 courses available for grades 9 through 12. Their courses are rigorous and exceed all national standards and recommendations. LCCS will accept courses that are taken at Sevenstar. Contact the College and Career Office for more information.

**Peer Mentor (Grades 11-12) (Application form required, available in HS Office)**

A peer mentor is defined as a knowledgeable and experienced guide, a trusted ally and advocate, and a caring role model. The position of being a Peer Mentor is considered to be an academic relationship between a fellow student (peer mentee) and the peer mentor for the purpose of developing godly character in the students; this teaches valuable skills while offering needed assistance to the mentee. Students primarily help FACS students succeed in general education classes by providing support and assistance.

**Public Speaking (Grade 12) 1 semester, .25 credit**

The primary goal of the public speaking course is to develop students' abilities as independent thinkers, writers, and great communicators of truth. As students develop skills in the course, they continue to learn and create ideas from a Christian world-view. Classroom discussion, giving speeches and active participation are vital facets of the class, and emphasis is placed upon developing critical thinking skills and mature presentations.

**SAT Prep (Grades 11, 12) 1 semester, .25 credit**

SAT Prep reviews material for the SAT using the Collegeboard Study Guide. The first quarter focuses on review of English and Math material and the different testing formats. The second quarter focuses on practice tests. A minimum of three tests are completed by the end of the semester course, with tests available in the study guide for additional practice. Juniors and seniors who have completed Algebra 1 and Geometry and are enrolled in Algebra 2 or Pre-Calculus are eligible for the course.

**Teacher's Aide (Grades 11-12) (Application form required, available in HS Office)**

The Teacher's Aide position is considered an academic relationship between a teacher and a student for the purpose of developing godly character in the student and teaching valuable skills; at the same time, this offers needed assistance to the teacher. The student is required to complete tasks in a timely and orderly manner. The student is graded on punctuality, reliability, initiative, attendance, diligence, competency, cooperation, positive attitude, and caring.

**Work Study (Grade 12) (Credit determined by amount of time away from school, Administrative Approval Needed)**

Students who work at least 20 hours a week can apply to leave school early to go to work. The student must sign an agreement with their supervisor and the supervisor will grade the student.