

12TH GRADE COURSE DESCRIPTIONS

LANGUAGE ARTS

English 12 - Study of British literature with attention to many classic works. They will use organizational skills, audience awareness, and appropriate vocabulary and grammar to plan and deliver an effective oral presentation. Writing will include producing technical, expository, and analytical papers. Each student will also produce a well-documented major research paper. Emphasis in grammar will focus on developing a sophisticated style in writing and speaking. Attention will be given to sequence of tense, effective sentence combining, parallel structure, and usage problems.

English 12 Honors - (Students must have signed approval from current English teacher in order to be admitted to an Honors English class. Also, the student must have a 91 average in his/her English class in order to be enrolled in an Honor English course. Students who have disciplinary and truancy issues will not be admitted into Honors English. Students must have passed the 10th grade Writing SOL and the 11th grade Reading SOL. This course is more rigorous in content, process, and expectation than the regular English course. In addition to the requirements for the regular English class, students will read additional novels chosen from a list compiled by the department. Writing will include sophisticated grammatical structures, and speaking skills will be more fully developed. Students will enter at least one writing contest per year.

AP English 12 - Offered through Virtual Virginia. www.virtualvirginia.org

VHCC English 12 - Prerequisite: Overall GPA of 3.0 or better; A or B English 11 and placement test. This is a composition class with a lot of writing and summer assignments required. Students must have passed the 10th grade Writing SOL and the 11th grade Reading SOL.

Journalism: Newspaper - Prerequisite: Application and recommendation from English teacher. Approval by newspaper advisor. Publication of the *Talon*, the school newspaper.

Journalism: Yearbook - Prerequisite: Application and recommendation from English teacher. Approval by yearbook advisor. Publication of school yearbook, *Beacon*

Humanities - Prerequisite: None. Grade 12. Humanities traces the progress of human development specifically through the arts of literature, drama, art, music, and architecture.

SOCIAL STUDIES

World History I or Honors - Prerequisite: None. Grades 9-12. World History is a survey of the early development of world cultures. Students will understand the development of world civilizations from the prehistoric era to AD1500. Emphasis is placed on Egyptian, Greek, Roman, and Asian cultural and geo-political contributions. Students will acquire an appreciation of the world's major religions.

World History II - Prerequisite: None. Grades 9-12. Examines the history and culture of the world from AD1500 - present. Students will recognize contributions made during major time periods that include the Industrial Revolution, the Renaissance and Reformation, and major military revolutions.

20th Century American History - a decade by decade review of US History to include pro and college sports, key inventions, evolution of music, the World Wars, movies/TV, Civil Rights, and Culture plus more.

Virginia and U. S. Government - Prerequisite: U. S. History. Course is designed to acquaint the student with a firm understanding of the structure and functions of state, local, and national government. The course also traces the development of government in the U. S. and the world and exposes the student to contemporary political thought and practice.

AP United States Government and Politics - Prerequisite: The student must have a 3.5 or better GPA as well as either AP U.S. History, VHCC U.S. History, or AP English 11. This course will cover the same subject content as regular Virginia and U. S. Government emphasizing a more in-depth approach to the material. The course will require more reading, writing, and oral participation than the regular class. The class is designed for the academic student who is willing to be challenged beyond the work of a regular U.S. Government class.

Psychology - Prerequisite: None. This is a survey course aimed at helping young people understand their own behavior and that of other people. It provides instruction in basic psychological terms and in the elementary principles of the science.

Local History (Appalachian History) - Study of Washington County, Southwest Virginia, and Appalachian region. Studies cultures and various area points of interest.

MATHEMATICS

Geometry - Prerequisite: Algebra I. This course stresses the basic structures of geometry and the development of formal proofs.

Theorems and postulates deal with relationships among the basic elements of space: the point, the line, and the plane. The course also deals with trigonometry, area and volume, constructions, coordinate geometry and transformations.

Algebra Functions and Data Analysis (AFDA) - Prerequisite: Algebra I. Focus on the context of mathematical modeling and data analysis, the study of functions and their behaviors, systems of inequalities, probability, experimental design and implementation, and analysis of data. Solving of problems that require the information of linear, quadratic, exponential, or logarithmic equations or systems of equations.

Algebra II - Prerequisite: Geometry. Topics of study include linear functions and relations, systems of linear equalities and inequalities, polynomials and rational algebraic expressions, sequences, quadratic formula, complex numbers, and exponential and logarithmic functions. Additional topics may include permutations, combinations, probability, and an introduction to matrices.

Trig/Analysis - Prerequisite: Algebra II. Includes the introduction of trigonometry with emphasis of the following topics: basic circular functions, graphs of circular functions, inverses of circular functions and their graphs, and trigonometric functions; studies exponential and logarithmic functions, and complex numbers.

VHCC Pre-Calculus - Prerequisite: Trig and placement test. Presents college algebra, matrices, algebraic, exponential and logarithmic functions, trigonometry, analytic geometry, and sequences and series.

VHCC Applied Calculus - Prerequisite: VHCC Pre-Calculus. Presents limits, continuity, differentiation of algebraic & transcendental functions with applications and intro to integration. Covers techniques of integration, multivariable calculus, and intro to differential equations.

VHCC Engineering Calculus - Prerequisite: VHCC Pre &/or Applied &/or placement test, overall 3.0 GPA. Presents analytic geometry and the calculus of algebraic and transcendental functions including the study of limits, derivatives, differentials, and introduction to integration along with their applications. Includes rectangular, polar, & parametric graphing, indefinite & definite integrals, methods of integration, & power series along with applications.

VHCC Statistics - Prerequisites: Trig and placement test. An introduction to the study of probability, interpretation of data, and fundamental statistical problem solving with an awareness of importance of math in the modern world. Covers basic statistical concepts for future college course. Students will explore and analyze data by observing patterns or the absence of patterns, interpret information from graphical and tabular displays, apply appropriate statistical models to infer information from data, and learn to use technology in solving statistical problems.

SCIENCE

Earth Science - Prerequisite: None. Environmental Science 9 is an earth science course designed for students who do not plan to attend college after graduation. Major emphasis and laboratory work are in the areas of geology, astronomy, meteorology, oceanography and physical geography.

Anatomy & Physiology - Prerequisite: Biology (or Honors) with an A/B average **AND/OR** Chemistry (or Honors) with an A/B average. Relates structure and function to provide an integrated view of how the human body works. Applications and examples will show how the human responds to disease, injuries, as well as what conditions help to optimize health. Computer simulations and/or optional dissections will be used to show how anatomy relates to physiology. Reviews biochemistry, cell biology, tissues and various organ systems.

Biology II/Ecology - Prerequisite: Completion of Biology or Biology H. This course involves hands-on laboratory activities as the student investigates and learns about issues and interactions between man and his environment

AP Biology - Completion of Biology H with an A average; completion of Chemistry Honors or currently in Chemistry Honors. This course is designed to be the equivalent of a college-introductory biology course usually taken by biology majors during their first year. It aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. The topic outline includes three main areas of emphasis: chemistry of life, heredity and evolution, and organisms and populations. The course is organized around eight major unifying themes. Research of current scientific literature is also included.

Chemistry I - Prerequisite: Completion of Biology (or Honors) with an A or B average; completion of Algebra II with an A or B, or current enrollment. Chemistry involves the study of matter and energy. Emphasis is divided between descriptive and quantitative aspects.

Chemistry Honors - Prerequisite: Completion of Biology Honors and Algebra II Honors an A average; concurrent enrollment in trigonometry/analysis. The course centers on the study of matter and energy. Laboratory and course content emphasizes quantitative aspects; topics explored in more depth.

VHCC Chemistry – Prerequisite Chemistry Honors with an A or B average, trigonometry/analysis with an A or B average. An in-depth study of chemistry that includes solution chemistry, acids and bases, electrochemistry, and nuclear chemistry. Lab exercises require intricate measurements and applications. Explores fundamental laws, theories and math concepts of chemistry.

Physics I - Prerequisite: Completion of chemistry and trigonometry/ analysis, or concurrent enrollment. Physics is a continuing process by which people seek to understand the nature of the physical world. Physics provides an opportunity to exercise mathematical and analytical skills to solve problems and to perform and interpret laboratory experiences. Among the topics studied are mechanics, wave phenomena, thermo-dynamics, electricity and magnetism, and atomic structure.

WORLD LANGUAGE

***Teachers recommend a C or higher to move on to the next level**

French I - Prerequisite: None. Grade 9 -12. A basic introduction to the French language focusing on basic conversational vocabulary with an emphasis on present-tense verb conjugation. Students will begin to develop reading, writing, listening and speaking skills through the use of simple sentences in the target language.

French II - Prerequisite: French 1. Grades 9-12. Completion of French I with a C or higher. A continuation of the study of conversational vocabulary and the present tenses. Emphasis will be placed on the study of the Past Tenses and more complex grammatical structures. Students will develop higher reading, writing, listening and speaking skills in the target language.

French III, IV - Prerequisite: prior level, final grade of C or higher. A continuation of the study of conversational vocabulary and verb tenses. Emphasis will be placed on the study of the Future and Conditional tenses and more complex grammatical structures. Students will continue to develop higher reading, writing, listening and speaking skills in the target language. Full French immersion and cultural exposure is the goal by the end of the course.

Latin I – Prerequisite: None. Grades 10-12. The objectives of Latin I are as follows. The structure and syntax of the Latin language will be presented. An appreciation of Roman civilization will be instilled and its effect on Western civilization. The Latin vocabulary will be integrated with English derivatives and word usage. Students will develop proficiency in the four language skills of reading, writing, listening, and to a lesser degree speaking, all of which are mandated by the Virginia SOL's. Resources used to achieve the above objectives include a textbook and accompanying workbook. Class activities will involve particular subject matter being studied. Worksheets and projects will be made available through the Classical Association of Virginia (CAV). Methods of assessment include quizzes, written tests, projects, group work, translations, and class participation. Students will participate in the National Latin Exam produced by the Classical Association of Virginia (CAV).

Latin II – Prerequisite: Latin I. Grades 10-12. Completion of Latin I with a C or higher. The objectives of Latin II are as follows. The structure and syntax of the Latin language as a continuance on Latin I will be presented. An appreciation of Roman civilization will be instilled and the effect of Western civilization. The Latin vocabulary will be integrated with English derivatives and word usage as a continuance of Latin I. Proficiency will be developed in the four language skills of reading, writing, listening, and to a lesser degree of emphasis, speaking, all of which are mandated by the Virginia SOL's. Resources include a textbook and accompanying workbook. Class activities involve particular subject matter being studied. Worksheets and projects are made available through Classical Association of Virginia (CAV). Methods of assessment include quizzes, written tests, projects, group activities, translations, and class participation. Students will participate in the National Latin Exam produced by the Classical Association of Virginia (CAV).

Latin III - Prerequisite: prior level, final grade of C or higher. The objectives of Latin III are as follows. Students will substantially complete the study of the elements of Latin grammar. They will acquire an increased knowledge of English derivatives through association, memorization, and application of prefixes, suffixes, and root words derived from the vocabulary of each author read. Proficiency in the reading of Latin literature will be increased. Students will be able to interpret the selected passages through critical analysis as mandated by the Virginia Standards of Learning (SOL's). Resources used in this class include a textbook, selected videos, group projects, and selected Latin passages of appropriate difficulty. Methods of assessment include quizzes, written tests, sight translations, projects, group activities, and class participation. Students may participate in the National Latin Exam produced by the Classical Association of Virginia (CAV).

Spanish I - Prerequisite: None. Grade 9-12. Spanish I is a basic introduction to the Spanish language with a focus on basic vocabulary and the present tense. Students will begin to develop reading, writing, and speaking skills through the use of simple sentences in the target language.

Spanish II - Prerequisite: Spanish I. Completion of Spanish I with a C or higher. Grades 9-12. Spanish II is a continuation of the study of vocabulary and the present tense. Emphasis is placed on the study of the Past Tenses and other more complex grammatical structures. Students will be expected to read, write, and speak at times in the target language and will continue to develop their listening skills.

Spanish III - Prerequisite: Completion of Spanish II with a grade of C or higher. Grade 9-12. Spanish III is a more in depth course that will review and study many of the same topics presented in Spanish I and II but to a higher degree. Speaking, listening, writing, and reading skills will expand as you begin to increase your ability to communicate in Spanish.

Spanish IV - Prerequisite: Completion of Spanish III with a grade of C or higher. Grade 10-12. Spanish IV is a course designed to increase student proficiency through a more intense approach to the study and assessment of listening, reading, speaking, and writing skills. Cultural knowledge plays a pivotal role in this course through the integrated and thematic study of history, film, literature, and music. The focus of the course is student-centered and many activities and assessments are more performance-based.

VHCC Spanish - Prerequisite Completion of Spanish IV with a grade of C or higher. Grade 11-12 only. AHS Dual Enrollment is a course in which students receive 6 college credit hours in one semester at the equivalent of Intermediate Spanish 201 and Spanish 202. As with Spanish IV, this course is designed to increase student proficiency through a more intense approach to the study and assessment of listening, reading, speaking, and writing skills. Cultural knowledge plays a pivotal role in this course through the integrated and thematic study of history, film, literature, and music. The focus of the course is student-centered and many activities and assessments are more performance-based.

BUSINESS EDUCATION

Economics & Personal Finance - Grade Levels 10-12. Students explore financial decision-making involved in daily life. Skills in money management, record keeping, & banking are enhanced through the study of basic concepts of economics, insurance, credit, and other related topics. Students are eligible to earn the WISE credential in this course. **REQUIRED FOR GRADUATION.**

Accounting I - Prerequisite: None. The course places emphasis on basic accounting principles relating to both manual and computerized financial systems.

Advanced Accounting – Prerequisite Accounting. Students gain in-depth knowledge of accounting procedures and techniques used to solve business problems and make financial decisions. Students use accounting and spreadsheet software to analyze and interpret business applications.

Computer Information Systems - Prerequisite: Keyboarding preferred. Grades 10-12. Students apply problem-solving skills to real-life situations through word processing, spreadsheets, databases, multimedia presentation, and integrated software activities. Students earn Microsoft Office Industry certifications in Microsoft Word, Excel, PowerPoint and Access in this and the VHCC CIS. They can also earn the Microsoft Office Specialist Master Certification in Word and Excel

VHCC Advanced CIS 6615 - Prerequisite: CIS. Grades 11, 12. Students apply problem-solving skills to real-life situations through advanced integrated software including printed, electronic, and Web publications to explore advanced computer maintenance activities, web site development, programming, networking, emerging technology, and employability skills.

Advanced Design Multimedia & Web Tech. - Prerequisite: Des. & Web Tech. Application Required. Grade level 12. Students develop proficiency in desktop publishing software for printed publications. Students develop proficiency in desktop publishing software for printed publications and create/edit/produce video sequences using video editing software.

HEALTH & P.E.

Advanced PE - Lifetime Sports - 3.0 GPA, A/B average in 9th & 10th PE. (Application and 2 teacher references required). Activities offer more lifelong activities that include swimming, canoeing, kayaking, fishing, water safety, beach volleyball, repelling, golf, tennis orienteering, bowling, camping, outdoor cooking, archery, and special classes like CPR, Youth Leadership, and Virginia Hunter Education.

Strength & Conditioning - Must be a participant in AHS athletics with coach's signature.

AGRICULTURE

Equine Science - In this course, students learn how to care for and manage horses. Equine health, nutrition, management, reproduction, training, evaluation, and showmanship are the major instructional areas. In addition, course content includes instruction in the tools, equipment, and facilities for equine enterprises. Business management topics include the economics of boarding, training, and merchandising horses. Leadership development activities are included, and participation in FFA activities is encouraged.

Ag Business Operations - Prerequisite: Ag II (Intro to Animal Systems) or Horticulture. Emphasis one or more of plant, animal, or soil science; agriculture business mgmt., based on student's employment objective. Competencies for various livestock enterprises - beef cattle, dairy cattle, swine, horses, or sheep. Exposed to leadership opportunities and supervised agriculture experience opportunities.

Greenhouse Plant Production and Management - Students are taught the operating procedures for a greenhouse. Units of instruction include developing plant production facilities, science application in plant production, and identification of plants. Business management, leadership development, and marketing skills are emphasized to prepare students for careers in the greenhouse plant production and management industry.

Floriculture - Prerequisite: Horticulture Sciences. Grade 10, 11, of 12. Students learn the basics of the horticulture plant production industry, plant material identification, and floral design.

Small Animal Care - Prepares students to care for and manage small animals focusing on health, nutrition, management, reproduction, & evaluation, as well as instruction in tools, equipment, and facilities.

Veterinary Science - Prepares students for career in veterinary medicine or related occupation. Content includes instruction in use of tools, equipment, and facilities.

MARKETING

Advanced Marketing - Prerequisite: Intro to Marketing or Marketing. Grade level 11 or 12. Students build on knowledge gained in a prior Marketing course. Students participate in supervisory and management activities focusing on the marketing mix, purchasing, financing, human resources, global marketing, pricing, and emerging technologies. Students will prepare for advancement in marketing careers and postsecondary education. This course reinforces mathematics, science, English, and history/social science Standards of Learning (SOL). Computer/technology applications and DECA activities enhance the course. DECA, the co-curricular student organization, offers opportunities in leadership, community, and competitive events.

Travel and Tourism Marketing and Sales - This course is designed to provide students with an in-depth look into marketing and sales in the travel and tourism field. Students learn about issues related to business and resource management, tourism's effect on the world economy, the political impact of tourism, and how the sales process affects the tourism industry. They develop advanced competencies in the areas of communication; human relations; finance; health, safety, and environmental issues; sales and marketing; industry technology; promotional planning; and marketing research. In addition, students gain an understanding of career trends and opportunities. Academic skills (e.g., mathematics, science, English, history, social science) related to the content are also a part of this course.

Sports, Entertainment & Management - Grade level 10-12. This introductory course helps students develop a thorough understanding of fundamental marketing concepts and theories as they relate to the sports and entertainment industries. Students will investigate the components of customer service skills, branding, product development, pricing and distribution strategies, business structures, sales processes, social media, sponsorships and endorsements, as well as promotion plans needed for sports and entertainment events. The course also supports career development skills and explores career options. Academic skills (mathematics, science, English, and history/social science) related to the content are a part of this course.

FINE ARTS

Art I - Prerequisite: None. Art I introduces students to the elements of art and the principles of design. This course includes art history, aesthetics, art criticism and studio production. Students will work in drawing from life, painting with tempera and water color, clay, sculpture, printmaking, papermaking, and bookbinding.

Art II - Prerequisite: Art I. The student will learn to analyze any work of art in terms of the elements of art and principles of design. Students will study art history with emphasis on selected artists. Covered will be drawing, painting, sculpture, ceramics, printmaking, and bookbinding. Student must have average of "C" or better on Art I.

Art III and IV - Prerequisite: Art II/III. Courses emphasize individual style, art history, aesthetics, and art criticism continue. Student must have average of "C" or better in Art II or III.

Band - Prerequisite: Audition or previous successful band experience. Grade level 9-12. Several concerts are presented during the year and band students may be eligible to participate in many county, district, and state band events. Areas of instruction include marching band techniques (fall season only), concert band performance, and survey of band literature, sight reading, audition preparation, technical development, and basic music theory.

Chorus - This course is made up of soprano/alto/tenor/bass combined into one large group setting. The course is designed to expand on skills learned in Chorus III.

WCCTC - serves 10th thru 12th grade; others by special permission of the Principal. Please see hand-out information provided.