

Carlisle School
Upper School Course Catalog 2018-2019

ENGLISH:

AP ENGLISH LANGUAGE AND COMPOSITION (GRADE 12)

AP English Language asks students to read and analyze writing as rhetoric, from political speeches to Shakespearean monologues. Students learn to analyze arguments, understanding how an argument is built, and how arguments reflect personal interest and status. Students should expect to be challenged, with college-level subject matter, and equivalent rigor in grading and homework. This class requires substantial time and attention for reading and writing, and will prepare students for an intermediate or entry-level college English class.

AP ENGLISH LITERATURE AND COMPOSITION (GRADE 11)

AP English Literature introduces students to the spectrum of literary genres, from ancient Greek drama to Romantic poetry, from the American novel to free verse. Students learn to use the essential elements of literary analysis, including close reading and interpretation. Students should expect to be challenged, with college-level subject matter, and equivalent rigor in grading and homework. This class requires substantial time and attention for reading and writing, and will prepare students for an intermediate or entry-level college English class.

ENGLISH 9

Emphasis for all students will be on developing composition, oral communication, critical reading skills, technology skills, vocabulary acquisition, research based projects and grammar skills which will enable the student to be successful in higher level English courses throughout Upper School. This course will encourage a holistic learning approach along with intercultural awareness through the use of a wide genre of materials and multicultural texts. The study of grammar, vocabulary, and writing helps the students become better communicators of the written word.

ENGLISH 10

Tenth Grade English involves literature studies, grammar, vocabulary, writing and rhetoric. The novels, poetry, plays, and short stories studied come from a range of backgrounds and topics giving students the opportunity to discuss and explore other times and cultures. Students are encouraged to be open-minded about the texts and opinions of other students during discussion. The study of grammar, vocabulary, and writing helps the students become better communicators of the written word.

ENGLISH 9 AND ENGLISH 10

Course Content:

- Literature and Poetry Studies through assigned and related texts challenges students to learn about themselves and the world around them as they analyze the writing of others.
- Grammar is studied through the need to make clear communication and correcting mistakes in our own writing.
- Vocabulary is an ongoing study that involves the literature we are reading as well as useful words, roots, prefixes for SAT preparation.
- Writing and Rhetoric involves examining the techniques of master writers and practicing various writing techniques throughout the year.

ENGLISH 11

This course, focusing on American literature, introduces students to longer, more complicated literary works and the appropriate techniques for analysis. Students learn the process of writing persuasive and discursive essays, read and annotate texts, and make arguments regarding the quality and structure of literary works.

ENGLISH 12

This course, focusing on world literature up to the present, helps students to polish their writing and reading skills. In the final year before college, students continue to refine their understanding and use of the writing process, following rules of mechanics and grammar. Students learn to research and compile information, culminating in a required Senior Project, an external job-observation project at the end of the school year.

SPANISH:

SPANISH 1

Spanish 1 provides an introduction to the language and culture of the countries where Spanish is spoken. Conversational skills and listening comprehension are stressed. Through the use of practical conversational topics, grammar and vocabulary are introduced and incorporated.

Course Content (includes but not limited to the following):

- Alphabet, colors, numbers
- Basic greetings and goodbyes
- Basic questions and answers including interrogative words
- Definite and indefinite articles
- Making nouns plural
- Adjectives and adjective agreement
- Subject pronouns
- Infinitives and regular verb conjugations in the present tense
- Irregular verbs like ser, estar, ir
- Introduction to stem-changing verbs like jugar and **-go** verbs
- Telling time
- Days, months, seasons, date
- Weather expressions
- Family words
- Applicable vocabulary with each chapter
- Culture

SPANISH 2

Spanish 2 provides the student a brief review of the material presented at the first level as well as further development of listening and speaking skills so that the student is able to express himself in daily situations given the length of study of Spanish. Vocabulary is emphasized. More complex grammatical structures are introduced, as are other verb tenses. Cultural themes continue to be studied as they pertain to current units. Reading and writing skills receive more emphasis utilizing the topics under current study, but encouraging the students to draw upon learned skills to better understand and communicate the Spanish language.

Course Content:

- Vocabulary acquisition
- Verbs in several different tenses
- Grammar and structure of spoken and written language
- Culture

SPANISH 3

The Spanish 3 student refines his knowledge of the vocabulary and grammatical structures learned during the previous two years of study. Learned vocabulary continues to be expanded. As new units are introduced, relevant vocabulary is introduced to supplement each unit. Vocabulary relevant to the student's daily life routine is emphasized so that meaningful discussion and conversation takes place. Listening and speaking skills are strongly emphasized while added emphasis is placed on reading and writing skills.

SPANISH 4 AND 5

Spanish 4 and Spanish 5 provide an opportunity for students to advance their knowledge of grammar and culture while improving their listening, speaking, reading, and writing proficiencies in Spanish. The focus of the course will include "the 5 C's of foreign language learning:" communication, cultures, connections, communities, and comparisons.

HISTORY:

AP EUROPEAN HISTORY

The Advanced Placement European History course is for qualified and motivated students who wish to acquire knowledge of the basic history of Europe from approximately 1450 to the present. It is important that American students immerse themselves in the events and ideas that have influenced our culture. Despite the current discussion of multiculturalism and the undoubted value and influence of non-European cultures, European traditions continue to be a major influence. The course introduces cultural, economic, political and social developments that played a fundamental role in shaping the world. Students acquire a context for understanding the development of contemporary institutions, the role of continuity and change in present-day society and politics, and the evolution of current forms of artistic expression and intellectual discourse. Human rights and material abundance are goals of many cultures all over the world. Both are products of Europe. Understanding the strengths and weaknesses of modern Europe helps students function more effectively.

AP US HISTORY

AP U.S. History is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. History. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials—their relevance to a given interpretive problem, reliability, and importance—and to weigh the evidence and interpretations presented in historical scholarship. AP U.S. History develops the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format. In addition to exposing students to the historical context, AP U.S. History will also train students to analyze and interpret primary sources, including documentary material, maps, statistical tables, and pictorial and graphic evidence of historical events. Students need to have an awareness of multiple interpretations of historical issues in secondary sources. Students should have a sense of multiple causation and change over time, and should be able to compare developments or trends from one period to another.

GOVERNMENT

This course focuses on the role of government in history, organization and operation of local, state, and national government. Students will study the U.S. Constitution with particular emphasis on the legislative, executive, and judicial branches. This course is intended to enable students to become active citizens in the democratic process. Students will interpret key sections of the U.S. Constitution, and apply them to current situations; analyze the role and actions of American Government and the media; as well as, examine critical rights and responsibilities of U.S. Citizens in democracy.

US HISTORY

11th Grade U.S. History is a survey course covering the History of the United States. This course examines the social, economic, political, religious, cultural, and philosophical aspects of its development. This course will teach students to critically evaluate primary source documents, learn and apply secondary course material, synthesize historical knowledge through written work, projects and/or presentations, and analyze the forces that shaped United States History.

WORLD HISTORY

World History is a survey course covering the history of Western, Asian, Indian, and Middle Eastern societies. This course examines the social, economic, political, religious, cultural, and philosophical development of the world. This course will teach students to critically evaluate primary source documents, learn and apply secondary course material, synthesize historical knowledge through written work, projects and/or presentations, and analyze the forces that shaped world history.

MATHEMATICS:

ALGEBRA 2

As an extension of the material covered in Algebra I and Geometry, this course aims to strengthen one's ability to analyze and solve mathematical problems both in the classroom and in "the real world". Topics to be covered include linear equations and inequalities, polynomials, coordinate geometry, transformations, linear systems, linear programming, matrices, rational expressions, radicals, sequences, complex numbers, exponentials, and logarithmic functions.

AP CALCULUS

This course is designed to help students understand the principles and concepts of calculus, not to memorize an enormous amount of formulas and identities to use to solve problems. If students can connect to the concepts being taught and visualize what is being asked in the problem, then there will be no need for rote memorization. The desire is for students to appreciate the beauty and complexity of Calculus while gaining respect for the field of mathematics. At the beginning of the course, students will spend several weeks becoming familiar with all the families of functions. The use of labs and other activities with the graphing calculator are used to gain a better understanding of how different functions behave and the properties that go with each function. The Rule of Four is used starting on day one of this course. Students are expected to express ideas in graphical, numerical, algebraic, and written form. Proper terminology and notation is expected. Students are required to spend time, outside of the classroom, reviewing and studying the topics discussed in class. Frequently, the instructor will pass out additional handouts for students to read on their own.

AP STATISTICS

This course is designed to model a college introductory level statistics course. The text and resources in this course encourage students to participate in whole class and small group discussions involving collecting, analyzing, and drawing conclusions from data. Students are required to use journals, articles, newspapers, and the Internet to aid in their research and analysis of data. Each student must use a TI 83/84 graphing calculator, java applets, and Microsoft Excel to investigate statistical concepts.

GEOMETRY

Geometry examines various plane figures and their relationships. This course strives to engage students in spatial reasoning and analytical thinking. Students will be encouraged to explore and reflect upon the useful applications of geometric principles. With the use of appropriate symbols, students will strive to speak and write the language of mathematics comfortably. Attention will be drawn to the significance and beauty of mathematics in our global society.

Prerequisite: Algebra 1

HONORS PRECALCULUS

This course is designed to enhance the material covered in the Algebra and Geometry courses in order to prepare students for the topics covered in Calculus. Students will be required to take elementary concepts and apply them in problem-solving using data, functions, and graphs. The students will be able to represent data using numerical, algebraic, graphical, and verbal forms. The graphing calculator will be used to enhance and assess problem-solving techniques.

Content covered includes:

Functions and graphs, polynomial, power and rational functions, exponential, logistic and logarithmic functions, trigonometric functions, analytic trigonometry, applications of trigonometry, systems and matrices and discrete mathematics.

MATHEMATICAL ANALYSIS

Students enrolled in Mathematical Analysis are assumed to have mastered Algebra II concepts and have some exposure to trigonometry. Mathematical Analysis develops students' understanding of algebraic and transcendental functions, parametric and polar equations, sequences and series as well as vectors.

PERSONAL FINANCE

Finance: The aims of this course are to:

1. Develop an appreciation for the importance of personal finance and career planning.
2. Master a wide range of financial vocabulary and concepts.
3. Analyze real-world situations.
4. Use economic reasoning.
5. Improve critical thinking skills.

SCIENCE:

AP BIOLOGY

AP Biology is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions. This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices.

AP CHEMISTRY

The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first year of college. An in-depth understanding of matter and composition, chemical and physical properties of matter, changes in matter, rates of change, laws of thermodynamics, and molecular interactions is the goal of the course. Along with knowledge of material, students will learn scientific questioning, using data collection and analysis to understand the foundations of chemistry.

AP PHYSICS

AP Physics is an introductory algebra based college level physics course. The course is designed to earn credit in a science course for non-engineering majors. Students will get a thorough introduction to Newtonian mechanics; work energy and power; mechanical waves and sound; and simple circuits. Investigations are inquiry based and deriving equations from real world experiences is emphasized.

BIOLOGY

Biology is an introductory high school biology course. It is a broad survey of the world of living things that prepares students to take college biology. Assignments include reading and note taking in the textbook, lab preparation and reports, online research and simulations, and individual and group projects and presentations.

CHEMISTRY

The general chemistry course is designed to be the second level of scientific advancement in the Upper School. An emphasis on basic laboratory skills and scientific analysis is built into the classroom experience. After successful completion of this course students have a solid foundation of chemistry, both for subsequent science courses and knowledge of chemistry in the world around them.

CONCEPTUAL PHYSICS

This course is designed to lay the foundation of physics for progress through the remainder of the Upper School science curriculum. The concepts of physics are examined using basic algebraic mathematical analysis, conceptually and in the laboratory.

A passing grade for the class indicates that the student has a good understanding of the basic concepts covered in this course and is prepared to enter chemistry and biology.

Course content includes: vectors, mechanics, waves, sound and light, electricity and nuclear physics and radioactivity.

HUMAN ANATOMY & PHYSIOLOGY

Human Anatomy & Physiology is a laboratory-based course that investigates the structure and function of the human body. Topics covered will include the basic organization of the body; biochemical composition; and major body systems along with the impact of diseases on certain systems. Students will engage in many topics and competencies related to truly understanding the structure and function of the human body. Students will be responsible for proper use of lab equipment, lab reports, and projects assigned throughout each unit.

TECHNOLOGY:

AP COMPUTER SCIENCE CSP

The course is designed to be equivalent to a first-semester introductory college computing course. The course engages students in the creative aspects of the field by allowing them to develop computational artifacts based on their interests. Students will also develop effective communication and collaboration skills by working individually and collaboratively to solve problems, and will discuss and write about the impact these solutions have on the their community, society and the world.

HONORS JAVA PROGRAMMING I

This course is an introduction to the Java programming language. The techniques of problem-solving, algorithm development and good structured programming style will be practiced in an object-oriented environment.

Course content includes: applets, variables and constants, conditional control structures, loop structures, strings, methods, classes, inheritance and polymorphism, and arrays.

Prerequisite: Visual Basic Programming

HONORS JAVA PROGRAMMING II

This course is an extension of Java Programming I focusing on higher level programming skills. The course culminates with an extensive project giving students the opportunity to create and thoroughly document a piece of software.

Course content includes: GUIs, event-driven programming, files and exception handling, recursion, sorting and searching.

HTML PROGRAMMING

This course is an introduction to the hypertext markup language used to create web pages as well a venture into more complex thinking patterns and an exercise in planning, organization and problem solving.

Course content includes: tags, tables, graphics, styles and cascading style sheets, framesets, attributes, site map, embedding objects and scripts.

PYTHON PROGRAMMING

This course is an introduction to the Python programming language. The techniques of problem-solving, algorithm development and good structured programming style will be practiced in an object-oriented environment.

Course content includes: software development process, algorithm design, expressions, assignment statements, numeric data types, type conversions, strings, objects, graphics, functions, decision structures, loop structures and Booleans, simulation and design, classes, data collection, OOP design and recursion.

ROBOTICS PROGRAMMING

Robotics programming develops 21st century skills such as design, innovation, problem solving, project management, communications and teamwork. It also teaches specialized concepts in technology (purpose of technology, relationships, systems, design tradeoffs, troubleshooting, sensors, performance, boundaries, mechanical elements, controls) and communication (brainstorming solutions, reasoning with evidence, explanatory composition, documenting processes).

Course content includes: building robots, firmware, downloading firmware, fundamentals, movement, direction, speed, sensing, touch, light, sound, variables, storing values, performing calculations, counting, and functions.

VISUAL BASIC PROGRAMMING

This course is an introduction to the techniques of problem solving, algorithm development and good structured programming style. The use of the programming language, Visual Basic, will be used to introduce as well as strengthen the desired programming skills.

Course content includes: computer history, windows and visual basic introduction, variables and constants, decision structures, looping structures, procedures, mathematical and business functions, arrays, graphics, color and sound, sequential files, random access files, sorting and searching, and multiple forms.

ADDITIONAL ELECTIVES:

AP PSYCHOLOGY

Psychology is most appropriately defined as the systematic study of behavior and experience. One of the goals of this course is to provide students with an opportunity to acquire a better understanding of how the human mind works and how this affects behavior.

Content: The psychology standard level syllabus is divided into the following four parts:

Part 1-Perspectives

The study of all three of the following perspectives is compulsory:

- The biological perspective
- The cognitive perspective
- The sociocultural perspective

Part 2-Options

- Abnormal psychology
- Developmental psychology

Part 3- Qualitative Research Methodology

The study of research methodology is compulsory. It comprises the following elements:

- Introduction to research methods
- Ethics
- Quantitative research methods

Part 4-Simple Experimental Study

The completion of a simple experimental study is compulsory.

CHOIR

A combination of fun, challenges and an opportunity to grow not only as a musician, but also as a young adult in a great environment here at Carlisle. Choir students will develop their singing voices, learn to sing in a choral ensemble, learn to read music, study music theory, and most importantly have many fun performance opportunities. A great deal of class time is spent on vocal and musical techniques as well as performance standards and will be demonstrated in performances throughout the school year. Music skills are introduced throughout the literature being studied at the time. Music from all periods will be introduced. Students are expected to attend all performances as grading falls heavily on class participation and performances. Carlisle Choir will perform two main concerts throughout the year; a Holiday concert in the winter and a Pop's concert in the spring. Other performance opportunities might arise such as, performing in the community or singing for sporting events.

DRAMA

Drama will facilitate learning the various arts that create a complete theatrical production: acting, sets, costumes, lights, sound, and make-up designs in an energetic, polite, and supportive environment. This year-long, activity-oriented course is designed to introduce students to the art of the actor while building upon the student's creativity. Students will also have the opportunity to practice performance skills such as ensemble work, acting techniques and characterization, performance techniques (movement and voice skills) and the use of improvisational games. Students will also have the opportunity to analyze various play extracts and Monologues to consider staging from the director's point of view. The learning the students will do in this class will culminate in One Act plays directed, starring, and staged by the students of this class.

ETYMOLOGY

Students in this class will explore the history of the English language, from its earliest roots in extinct languages, to the influence of modern warfare and globalization on our speech. Students will learn to analyze unfamiliar words and how to map complicated sentences, which will help their SAT scores. Finally, students will grapple with the philosophical problems around the idea of language, and learn how grammar and word choice are tools for thinking.

FILM

Through literature and film, students will gather a new understanding of the text and context of each medium. Literary knowledge will be enhanced through the accompanying film, and film analysis will be based on various elements from social and economic climate to film techniques.

FORENSICS

Forensic Science - surveys key topics in forensic science, including the application of the scientific process to forensic analysis, procedures and principles of crime scene investigation, physical and trace evidence, and the law and courtroom procedures from the perspective of the forensic scientist. Through classroom lessons, virtual and hands-on labs, case studies, and analysis of fictional crime scenarios, students learn about forensic tools, technical resources, forming and testing hypotheses, proper data collection, and responsible conclusions. Biology is a prerequisite for this course.

INTRODUCTION TO BUSINESS

This course seeks to aid students in understanding rudimentary elements of business, economic systems, and entrepreneurship. Students will learn the steps necessary in becoming competent business leaders and decision makers in our global society.

Content:

- Types of Businesses
- The Business Cycle
- Strategic Business Plans
- Economic Systems
- Supply/Demand
- Risk Management
- Business Management
- Business Ethics
- International Business
- Human Resources
- Accounting Principles

JOURNALISM

Identify, master, and practice the skills necessary in conceptualizing and designing the yearbook. Determine the basis of design and layout, including page elements common to a yearbook publication. Apply the basic principles of design, use graphics as an element in design, and use technology to aid in the design process. Understand the basic rules of photography, use computer programs to edit photos, and organize pictures in an effective way. Identify, master and practice the skills necessary in financing the yearbook, determine and monitor sales goal for ad sales, and approach businesses during the ad campaign. Conduct an effective interview, use quotations effectively, and create various types of captions and headlines.

MUSIC APPRECIATION

Music Appreciation is an elective course of the history of music from the Mid 1700's to the present. This course focuses on musical genres (Rock, Pop, Hip Hop/Rap, Country/Folk, Jazz and Classical) and goes through each from their inception to now. The course focuses on a select group of great artists, bands, and composers and is designed to be an enjoyable introduction to the world of music. No musical background or training is assumed or required. This course provides opportunities to become familiar with the basic elements of music as well. Students will learn the significance of surroundings and time periods and how they both influenced the music of the day.

PHYSICAL EDUCATION

The Upper School Physical Education class focuses on teamwork, cooperation, sportsmanship, development of character, and inclusion of all students; regardless of athletic ability or cultural differences. We aim to provide every student with a wide variety of physical activities and challenges that will contribute to the development and maintenance of their physical, cognitive, and affective well being. In addition, we also stress the importance of physical well being as well as sustaining healthy habits as a foundation for a healthy, productive and fulfilling life. Students will dress out in athletic attire during class time - shorts or sweatpants, t-shirt, and tennis shoes.

PSYCHOLOGY

Psychology is the systematic study of individual human behavior and experience. The purpose of this course is to introduce the student to the content, terminology, methodology, and application of the discipline. This survey course contains an introduction followed by four units based on the physiological, cognitive, behavioral, and affective domains of psychology. This elective course stresses the application of academic content to the student's life.

SPORTS MEDICINE I

The Sports Medicine I curriculum at Carlisle School is designed to educate students interested in fields such as athletic training, physical therapy, medicine, fitness, physiology of exercise, kinesiology, nutrition and other sports medicine fields. It includes introductory information about the AT's scope of practice: injury prevention, treatment, rehabilitation, emergency injury management and administrative functions. This course is intended to help students gain an understanding of sports medicine, various associated disciplines and the role they play in the physically active community. Students enrolled in this class will not provide patient care.

SPORTS MEDICINE II

The main focus of Sports Medicine II is to introduce students to the science of human anatomy and physiology, various injuries of the body, and ways to care for these injuries. More specifically, we will separate the semesters into lower extremity and upper extremity to further understand how applied forces affect the body in terms of injury and location. In addition to classroom responsibilities, the student will also be responsible for 10 hours of on-field practice by sitting with the assigned Athletic Trainer at home Carlisle games in order to gain more practical knowledge of the field.

STUDIO ART

Studio Art is a skill-building course designed to meet the needs of each individual student. The objective is to encourage each student to master a variety of techniques using different artistic media.

Description of course content:

- First year students begin with gesture and contour drawing.
- Students progress to negative space and perspective drawing.
- Students learn about rendering, value, light, form and texture and are required to apply these techniques in still life and landscape drawings.
- Students experiment with acrylic paint and learn how to mix colors and apply paint to canvas.
- After the first year the course is more individualized and tailored to the strengths and weaknesses of each student. This allows for free expression and formation of a unique creative style.
- More creativity is stressed as the student masters the basic techniques and concepts.
- Students interested in pursuing a college level artistic education, have the opportunity to develop a portfolio suitable for college entrance requirements.

WRITING ACROSS THE CURRICULUM

This course is designed to enhance writing across the curriculum by focusing on the basics of grammar and mechanics, as well as content and structure. By the end of the course, each student will understand how to adapt their writing to different courses and assignments while maintaining the written language.