

## 12<sup>th</sup> GRADE HONORS COURSES

### AP English Literature – English

**Course Overview:** The 12<sup>th</sup> grade Advanced Placement Literature and Composition course is designed to follow the curricular requirements as set forth by the **AP College Board**. Students in the AP English Lit course will engage in the careful reading of literary works, **sharpen** their awareness of language and their understanding of the writer's craft, develop critical standards, and increase their **sensitivity** to literature as a *shared* experience. Students will study the individual work, its language, its characters, the action, and the theme(s). Students will consider the work's structure, meaning, and value along with its relationship to contemporary experience as well as to the context in which it was written. Each literary work will be approached in a mature manner recognizing that works of literary merit are created to expose, to reveal, to enrage, to provoke, to challenge, to offend, and to enlighten.

**Course Expectations:** Reading, interpreting, and writing will all coexist in the AP English Lit course. The ability to construct mature arguments and analysis using a variety of sentences will be the standard. Assignments will focus on the critical analysis of literature and will include informal/formal essays, critical essays based on **close textual analysis** of structure, style (figurative language, imagery, symbolism, and tone), theme, and social/historical values. Also, speaking and writing along with debate and dialogue about different subjects should further develop a sense of how style, subject, and audience are related. The desired goals are the honest and effective use of language and the energetic organization of ideas in a clear, coherent, imaginative, analytical, and persuasive manner.

**Summer Reading:** Students will be expected to read the following books prior to the beginning of school. Please select **TWO** of the following: Shakespeare's *King Lear*, Shakespeare's *Julius Caesar*, Shakespeare's *Twelfth Night*, Shakespeare's *Hamlet*, and/or Shakespeare's *Macbeth*. Please visit the RHS website for additional information regarding Summer Reading.

### AP Calculus

This course is comparable to a first semester calculus in college and is very demanding, but at the same time helps students be prepared for college courses and careers that require higher order thinking, problem solving, and mathematical applications. Success depends on ability and a willingness to study. Time will need to be set aside each night for studying or homework. A TI84 C graphing calculator is also required. By the end of this course, students should be able to: work with functions represented: graphical, numerical, analytical, or verbal, understand the meaning of the derivative in terms of a rate of change and local linear approximation and use derivatives to solve a variety of problems, understand the meaning of the definite integral both as a limit of Riemann sums and as the net accumulation of change and to use integrals to solve a variety of problems, understand the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus, communicate mathematics in well-written sentences and explain solutions to problems, model a written description of problem with a function, differential equation, or integral, and use technology to help solve problems, experiment, interpret results, and verify conclusions.

### AP Statistics

AP Statistics is not like any other math class you have taken. You never have to wonder how what you are learning applies to the world because you will see the real world connection with everything you do in class. You will learn that close is good enough and what those studies and polls are really saying. This is a college-level course and you will be held to high expectations and mature responsibilities. The class will provide students with an understanding of how to explore data, using sampling and experimentation techniques, exploring random phenomena using probability and simulation as well as developing statistical inference through testing hypotheses. You will discover that in statistics close is good enough. Students will be expected to complete reading assignments, devote time to homework assignments and projects. You will need to set aside time each night for studying or working on assignments. Internet access is also required.

### AP Macroeconomics

The purpose of an Advanced Placement course in macroeconomics is to give students a thorough understanding of the principles of economics that apply to national income and price determination, economic performance measures, economic growth, and international economics. The course will be largely based on the principal of post hoc logic as it pertains to macroeconomic issues and graph models. This is a college level course with college level expectations and daily work load.

### AP Biology

Description: AP® Biology is both a hard and fun course. It provides students with an opportunity to develop a conceptual framework for modern biology emphasizing applications of biological knowledge and critical thinking to environmental and social concerns. This is a college-level course and you will be held to high expectations and mature responsibilities just like a college freshman taking Introduction to Biology.

Students will be expected to complete extensive reading assignments, develop full-length lab reports, and devote time to homework assignments and projects. Time will need to be set aside each night for studying or work. Internet access is also required.

### Honors Human Anatomy/ Physiology

Honors Anatomy is a rigorous upper-level course to be taken by upperclassmen as a 4<sup>th</sup> science credit. The material is geared towards those students wishing to pursue Biological and Healthcare Science academic endeavors in the future. Students must accept that Anatomy will have two very challenging aspects. The first challenge of the Honors Anatomy curriculum is the extensive use of Latin and Greek science vocabulary necessary to correctly communicate about the body in medical terms. The second is the vast range of material that Anatomy and Physiology presents. Students will be expected to learn everybody system from Integumentary to Cardiovascular in great detail. The textbook used to convey the Honors Anatomy curriculum is intended for college level students and is used extensively. Honors Anatomy students must therefore be self-motivated and have a fundamentally sound understanding of Biology.

### Honors Physics

By the conclusion of the course, the student is expected to meet the requirements of the Georgia State Standards for Physics. These standards are for the skills and processes needed to complete scientific investigations as well as for physics content. Student grades will include quizzes, tests, lab reports, homework, and projects. Formal lab reports are to be prepared following the standard lab report format distributed in class. A scoring rubric for formal lab reports accompanied this format. Homework will be given some nights and weekends. It is important to complete the homework to master the concepts taught. Every school night the student is to review the daily outcomes presented in class. It is the responsibility of the student to make sure he or she has completed the outcomes each day. The course text is supplied as a reference for the course. If any questions remain concerning the material covered during class, the student is expected to review the appropriate sections of the text to further his or her understanding of the material. If questions remain after reviewing class notes, relevant lab data, and the text, the student should prepare questions to ask at the beginning of the next class to clarify the material.

Each unit will include short laboratory activities to explore the concepts covered and longer laboratory challenges in which students will be asked to apply the knowledge and skills learned during the unit to accomplish a specific task. Lab work is specifically designed to challenge the preconceptions that students bring to their study of physics. These preconceptions are based on previous observations of the natural world and explanations of these observations assembled from a sometimes flawed understanding of the interactions of matter and energy in the natural world.

### AP Physics

AP Physics meets daily for a 96 minute period for one semester and has a pre-requisite of successfully completing Physics. It is a lab intensive course with labs conducted both during class time and **on weekends** during the semester. The course is designed to provide the equivalent of a year of college physics and prepare students for the AP Exam. Because of the limited class time, students are expected to spend a minimum of one hour of study time per night. The pace of the class will be fast and much of the responsibility will be on the student to learn the material.

The course focuses on the interconnections between the various strands and units contained in the course syllabus and how each contributes to the “Big Ideas” that provide a core foundation for this science course. Problem solving techniques and strategies are finely tuned throughout the year, and students are continually tasked with connecting physics applications learned in different units in order to synthesize solutions to complex problems. The emphasis on theoretical topics, critical thinking and problem solving makes this class challenging. Mathematics is used to illuminate physical situations rather than to show off a student’s manipulative abilities. Students must be strong in both math and science to be successful in this course. Conceptual understanding of the material is a requirement for success.