Course Title: AP® Literature and Composition  
Grade Level: 12  
Credits: 5

Prerequisite: 85 or higher in English III. Follows AP course registration requirements.  
Description: The AP English class will be a combination of preparation for the AP English Exam to be taken in May as well as a collegiate level study of literature and writing. Through a curriculum outlined by the College Board, the class will enable students to read and understand complex texts and demonstrate this understanding through mature and effective writing. The literature of the course can be broken down into three genres: poetry, drama, and fiction (novel and short story). Close reading will revolve around the experience of literature, the interpretation of literature, and the evaluation of literature. Students will be expected to read deliberately and thoroughly, taking time to understand a work’s complexity, to absorb its richness of meaning, and to analyze how that meaning is embodied in literary form. Concurrently, students will be expected to have a strong background in grammar in order to focus intense concentration on enhancing their abilities in refined writing. Various forms of writing will be emphasized and frequent writing assignments of varying lengths with several drafts should be expected. This course is recommended only for those wishing and willing to work diligently at a collegiate level and as preparation for the AP exam.

INTERDISCIPLINARY STUDIES

Course Title: AP® Economics (Macro/Micro)  
Grade Levels: 11-12  
Credits: 5

Prerequisite: 85 or above in Combined Algebra or concurrent enrollment in a level 3 Math course. Follows AP course registration requirements.  
Description: AP Economics (Macro/Micro) is a full year course designed to prepare the student to take both the AP Macroeconomics and AP Microeconomics tests given by the College Board for potential college credit. Macroeconomics is the study of the economy in the aggregate so it focuses on how consumers and businesses respond to changes collectively. Microeconomics is the study of economic behavior for individuals and individual businesses. It is a challenging, rigorous and fast paced course, taught at the college level and uses a college level text book. This class is both conceptual and quantitative. Most concepts are covered both numerically and graphically. Students who take this class are expected to be self-directed learners who have an interest in the economy, or plan to pursue a business oriented program in college. Students will be expected to complete the readings and problems assigned as well as supplement their understanding of the material with outside sources. Average weekly time commitment is expected to be 4 -6 hours.
MATHEMATICS

Course Title: AP® Calculus I/AB  
Grade Levels: 10-12  
Credits: 5

Prerequisite: 85 or higher in Mathematical Analysis; Teacher Recommendation  
Description: AP Calculus I/AB is a rigorous college-level course which emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally. Topics covered include the initial review of pre-calculus topics, limits, differentiation and its applications, and integration and its applications. There is an emphasis on problem solving, working collaboratively, and communicating mathematically in both written and oral form. Graphing calculators are used in class on a daily basis and are provided by the school. Since this is an Advanced Placement college-level course, students are expected to spend a considerable amount of time outside of class in homework preparation and daily studying. An Advanced Placement exam will be given through the College Board in May.

Course Title: AP® Calculus II/BC  
Grade Levels: 11-12  
Credits: 5

Prerequisite: 85 or higher in AP Calculus I/AB; Teacher Recommendation.  
Description: Calculus II is a rigorous college level course that emphasizes a multi-representational approach to calculus. Students learn to express mathematical concepts geometrically, numerically, analytically, and verbally. As a continuation of Calculus I, topics covered in this class include applications and techniques of integration, L’Hopital’s Rule, improper integrals, an introduction to differential equations, infinite series and sequences, conic sections, parametric and polar equations. Students who enroll in Calculus II will be expected to participate in a collaborative learning environment. As in Calculus I, problem solving and mathematical communication in written and oral form are an essential component of this course. Graphing calculators are utilized extensively and are provided by the school. Calculus II is an Advanced Placement, college level course. Therefore, all students are expected to spend considerable time outside of class in homework preparation and daily study. An Advanced Placement exam will be given through the College Board in May.

Course Title: AP® Statistics  
Grade Level: 12  
Credits: 5

Prerequisite: 85 or above in Math Analysis and recommendation from Math Analysis teacher.  
Description: AP Statistics is an intensive course that introduces students to the major concepts and tools for drawing conclusions from data. Areas of study include data analysis, regression analysis, probability, sampling and experimentation, and statistical inference. Theory and practice involve summary statistics and graphical displays of data, correlation, linear regression, survey design and implementation, design of experiments, probability distributions, confidence intervals and hypothesis testing. Graphing calculator, statistical software, and written and oral communication skills will be developed by solving real-life problems and interpreting the results using actual data. Students will be expected to take the AP Statistics examination in May.
**SCIENCE**

**Course Title:** AP® Biology  
**Grade Levels:** 11-12  
**Credits:** 6

**Prerequisites:** 85 or above in both Biology I and Chemistry I; Teacher Recommendation

**Description:** AP Biology is designed to be the equivalent of a college introductory biology course. Three general areas of biology, molecules and cells, heredity and evolution, and organisms and populations, will be covered in detail. The two main goals of AP Biology II are to help students develop a conceptual framework for modern biology and to help students gain an appreciation for science as a process. To gain conceptual understanding students must participate in scientific inquiry, recognize unifying themes that integrate the many parts of biology, and apply biological knowledge and critical thinking to environmental and social issues. This course is designed to prepare students for the Biology AP Test. Students should also be comfortable in taking the SAT II examination in Biology.

**Course Title:** AP® Chemistry  
**Grade Levels:** 11-12  
**Credits:** 6

**Prerequisites:** 85 or above in Chemistry I; Teacher Recommendation; AND successful completion of or current enrollment in Mathematical Analysis

**Description:** The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. Students will attain a depth of understanding of the fundamentals of chemistry and a reasonable competence in dealing with chemical problems. The course will contribute to the development of the student’s abilities to think clearly and to express their ideas, orally and in writing, with clarity and logic. The AP chemistry course is designed to be taken only after the successful completion of Chemistry I. This is a rigorous, in-depth course covering all topics touched upon in the first year of chemistry. Since this course is designed to prepare students for the AP chemistry exam, they will be expected to keep up with the work. Students should also be comfortable in taking the SAT II examination in Chemistry.

**Course Title:** AP Physics C-- Electricity & Magnetism  
**Grade Level:** 12  
**Credits:** 6

**Prerequisite:** 85 or above in AP Physics C – Mechanics; Teacher Recommendation and successful completion of AP Calculus I/AB

**Description:** Electricity & Magnetism is a calculus-based college-level continuation of the Physics I course. The course is designed to be equivalent to the second semester of a typical college sequence in physics for science and engineering majors. Major areas of study include electric forces and fields, Gauss’ Law, electric potential, capacitance, DC circuits, magnetic forces and fields, and induction. The main goal of the course is to further develop students’ problem solving and critical thinking skills through in-depth investigation of classical mechanics and electricity & magnetism. This course emphasizes problem solving, working collaboratively, and communicating scientifically in both written and oral form. Calculus is used extensively, both in developing and unifying concepts and in problem solving. The laboratory component of this course focuses on the design of experiments, with students developing skill in measuring, organizing, and analyzing data. Since this is an Advanced Placement college-level course, students are expected to spend a considerable amount of time outside of class in homework preparation and daily studying (at least one hour a day). The College Board will administer the Advanced Placement exam in Physics C – Electricity & Magnetism in May.
Course Title: AP Physics C-- Mechanics  Grade Level: 12
Credits: 6

Prerequisite: 85 or above in Physics I; Teacher recommendation AND successful completion of or current enrollment in AP Calculus I/AB

Description: Mechanics is a calculus-based college-level continuation of the Physics I course. The course is designed to be equivalent to the first semester of a typical college sequence in physics for science and engineering majors. Major areas of study include kinematics, forces and motion, work and energy, systems of particles, rotational dynamics and statics, gravitation, and oscillations. The main goal of the course is to further develop students’ problem solving and critical thinking skills through in-depth investigation of classical mechanics. This course emphasizes problem solving, working collaboratively, and communicating scientifically in both written and oral form. Calculus is used extensively, both in developing and unifying concepts and in problem solving. The laboratory component of this course focuses on the design of experiments, with students developing skill in measuring, organizing, and analyzing data. Since this is an Advanced Placement college-level course, students are expected to spend a considerable amount of time outside of class in homework preparation and daily studying (at least one hour every day). The College Board will administer the Advanced Placement exam in Physics C – Mechanics in May.

SOCIAL STUDIES

Course Title: AP® Government and Politics: United States  Grade Level: 12
Credit: 5

Prerequisite: 85 or above in United States History II; Teacher Recommendation.

Description: The AP United States History course 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 course 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. An AP U.S. History course should thus develop 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. Topics covered will include: American diversity, American identity, culture, demographic changes, economic transformations, environment, globalization, politics and citizenship, reform, religion, slavery and its legacies in North America, and war and diplomacy.

Course Title: AP European History  Grade Levels: 12
Credits: 5

Prerequisite: 85 or above in United States History II; Teacher Recommendation.

Description: The goals of the AP European History course are for students to gain knowledge of basic chronology of major events and trends from approximately 1450 to the present. Also, students will develop an understanding of some of the principal themes in modern European history including intellectual and cultural history, political and diplomatic history as well as social and economic history. Finally, the students will gain an ability to analyze historical evidence, as well as express historical understanding in writing. This is a demanding course for students with a serious interest in history. Students will be expected to interpret and analyze historical documents as well as identify trends over time.
Prerequisite: 85 or above in United States History I; Teacher Recommendation
Description: The AP United States History course 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 course 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. An AP U.S. History course should thus develop 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. Topics covered will include: American diversity, American identity, culture, demographic changes, economic transformations, environment, globalization, politics and citizenship, reform, religion, slavery and its legacies in North America, and war and diplomacy.

WORLD LANGUAGES

Course Title: AP® Spanish Language
Grade Levels: 11-12
Credits: 5

Prerequisites: Recommendation of current Spanish teacher and completion of Spanish IV with 85 or above.
Description: The AP Spanish Language course seeks to develop proficiency in all four language skills: listening, speaking, reading, and writing in order to demonstrate understanding of authentic Spanish-language source materials. This course is designed for those students that have knowledge of the Spanish Language and they can follow at high level.

An AP Spanish Language course is comparable to an advanced level college Spanish language course. This course emphasizes the use of Spanish for active communication, reading comprehension, grammar, and composition.

The AP Spanish Language course helps to prepare students to demonstrate their advanced level of Spanish proficiency across three communicative modes: Interpersonal, Interpretive, and Presentational, and the five C’s standards for Foreign Language Learning in the 21st Century (Cultures, Connections, Comparisons, and Communities).