

## List of Advanced Placement Courses Clarksburg High School

# Advanced Placement Power Scholars Apps

### **ART**

#### *Art History*

They study the evolution of Western and non-European art in contemporary society by examining the major forms of visual expression in world cultures. Students analyze architecture, sculpture, painting, and the decorative arts within a historical and cultural context. They also focus on the ancient through the medieval periods of history.

#### *Music Theory and Composition*

Students with strong interest and preparation in music prepare to meet the requirements of the College Board for advanced placement in Music Theory. Practice in sight-singing, dictation, composition, and improvisation is complemented by listening and score analysis. In the second semester, students read, write, and analyze music of increasing complexity. They study in detail the techniques used to compose music, including electronic media.

#### *Studio Art Drawing*

This individualized program focuses on art projects that demonstrate the competencies expected of AP art applicants. Students assemble portfolios to meet the submission requirements for the AP exam. This course may be repeated for credit. Writing and thinking skills are reinforced through journaling.

#### *Studio Art 2-D Photography*

Students will be working on building a portfolio with a Breath of experimental photographic techniques as well as utiliz-

ing formal photographic techniques while improving on processing film and dark-room techniques. The portfolio will focus on the Elements of Art. This individualized program focuses on art projects that demonstrate the competencies expected of AP art applicants, as identified by the College Board. Students assemble portfolios to meet the submission requirements for the AP Exam. Writing and thinking skills are reinforced through journaling.

### **ENGLISH**

#### *English 11: Language and Composition*

This course is designed for able and motivated students with a command of standard English and a lively interest in the power and versatility of language. Students read complex prose written in a variety of periods, disciplines, and rhetorical contexts and write for a range of purposes to express ideas with clarity and precision. Students are strongly encouraged to take the AP examination at the end of the course.

#### *English 12: Literature and Composition*

This course is designed for able and motivated students with a command of standard English and an interest in reading challenging literature, both classical and contemporary and representative of dominant literary genres and themes. Students apply methods of literary analysis and write for a variety of purposes to increase their precision in expression. Students are strongly encouraged to take the AP examination at the end of the course.

### **FOREIGN LANGUAGE**

#### *Spanish Language*

This course is for foreign language students interested in college-level courses or gaining advanced college credit. Students concentrate on developing proficiency in speaking, listening, reading, and writing in preparation for the Advanced Placement language examination. In addition, this course will emphasize mastery of linguistic competencies at a very high level of proficiency.

#### *Spanish Literature*

This course is for foreign language students interested in college-level work or credit. A selection of challenging literature and materials helps students deepen their understanding of how literature communicates meaning through form and content. Students read, discuss, and react to representative works of a range of literary genres and themes in preparation for the appropriate AP exam.

### **MATH**

#### *Calculus AB*

Calculus AB topics are those traditionally offered in the first year of calculus in college, and are designed for students who wish to obtain a semester of advanced placement in college. The topics studied include limits, continuity, derivatives and integrals of algebraic and transcendental functions and their applications, and elementary differential equations.

#### *Calculus BC*

Calculus BC includes all of the topics in Calculus AB, as well as convergence tests for series, Taylor or Maclaurin series, vector, polar, and parametric functions. Students in BC Calculus generally receive two semesters of Advanced Placement in mathematics.

#### *Statistics*

Advanced Placement Statistics students engage in the exploratory analysis of data, using graphical and numerical techniques. Data sets are collected using statistical design methods. Students produce appropriate models using probability, simulation, and statistical inference. Models are used to draw conclusions from data and analyzed by inferential methods to determine whether the data support or discredit the model. This course is equivalent to a non-calculus-based introductory college statistics course.

## SCIENCE

### *Biology (Double period) (BC)*

These are double-credit courses that meet two periods each day. The courses have the same objectives as Biology AP A and AP B, with the provision that the content, materials, and activities of Biology AP (double period) follow the Biology Advanced Placement curriculum. Students may not earn credit for both single and double-period AP Biology A and B. Dissections may occur in this course. See Alternatives to Dissection at the end of the Science section.

### *Chemistry (Double period) (PC)*

These are double-credit courses that meet for two class periods each day. The courses have the same objectives as Chemistry AP A and AP B, with the provision that the content, materials, and activities of Chemistry AP (double period) follow the AP curriculum. Students may not earn credit for both single- and double-period AP Chemistry A and B.

### *Environmental Science (SC)*

Environmental Science AP A and B are for highly motivated students with interest in interdisciplinary science. Environmental Science AP builds on concepts covered in Environmental Science, with greater detail in content and laboratory investigations. Students are prepared to take the Advanced Placement environmental science examination at the end of the course. Topics in Environmental Science AP include the interrelationships of the natural world and environmental problems, issues, and solutions.

### *Physics C (PC)*

This course is for highly motivated students with interest in the physical sciences. Students use calculus in problem solving and in derivations as they study Newtonian mechanics, electricity, and magnetism. Students are prepared to take the Advanced Placement Physics C examination at the end of this course.

## SOCIAL STUDIES

### *US Government and Politics with NSL*

This course is a year-long survey of American government. The course combines the content and skill development of Advanced Placement U.S. Government and Politics and National, State, and Local Government. Note: Advanced Placement United States Government and Politics with NSL may be used to satisfy the graduation requirement of a year in National, State and Local Government A and B.

### *History, European*

This college-level course is a survey in European history from the 15th century to the present. A college-level text is used, and students engage in college-level writing and discussion. This course prepares students for the AP European History examination.

### *History, United States*

This course is for students desiring a freshman college-level course in United States history. The course is a survey of this nation's history from 1607 to the present, using a college-level text and requiring college-level writing and discussion.

### *History, World*

The course is designed for students who desire a college level course in world history. Students use college level text books and engage in seminars, discussions and debates. The purpose of the AP world History course is to develop greater understanding of the evolution of global processes and contacts in interactions with different types of human societies. This understanding is advanced through a combination of selective factual knowledge and appropriate analytical skills. The chronological time frame is from the stone age through the present. This course prepares students for the AP World history examination.

### *Psychology*

This college-level course prepares students for the AP exam. Students scientifically study behavior and investigate the psychological domains, methods of research, biopsychology, cognitive processes, lifespan development, and socio-cultural dimensions of behavior. Semester B extends student investigation of the psychological domains and includes thinking and language; states of consciousness; individual differences; personality and assessment; and psychological disorders and their treatment.

## TECHNOLOGY

### *Computer Programming 2 A*

Using the Java language, students explore in-depth work with text files and arrays, abstract data types, recursion, searching and sorting algorithms, and program efficiency. Examination of specified class behaviors, interrelated objects, and object hierarchies are studied. Students may elect to take the A version of the Advanced Placement Computer Science exam upon completion of this course.

### *Computer Programming 3 A/B*

Students will study programming methodology, the features of programming languages, primitive data types, dynamic allocation of memory, data structures, searching, sorting, and numerical algorithms, using the Java programming language. The topic of graphics is introduced through the Advanced Placement case study. Students may elect to take the AB version of the Advanced Placement Computer Science exam upon completion of this course.

\*Courses offered are run based on the number of students selecting each course.