

THE COLLEGE BOARD'S ADVANCED PLACEMENT PROGRAM

Advanced Placement can change your life. Through college-level AP courses, you enter a universe of knowledge that might otherwise remain unexplored in high school; through AP Exams, you have the opportunity to earn credit or advanced standing at most of the nation's colleges and universities.

THE AP® CHOICE

Gain the Edge in College Preparation

- ✓ Get a head start on college-level work.
- ✓ Improve your writing skills and sharpen your problem-solving techniques.
- ✓ Develop the study habits necessary for tackling rigorous course work.

Stand Out in the College Admissions Process

- ✓ Demonstrate your maturity and readiness for college.
- ✓ Show your willingness to push yourself to the limit.
- ✓ Emphasize your commitment to academic excellence.

Broaden Your Intellectual Horizons

- ✓ Explore the world from a variety of perspectives, most importantly your own.
- ✓ Study subjects in greater depth and detail.
- ✓ Assume the responsibility of reasoning, analyzing, and understanding for yourself.

WTHS ADVANCED PLACEMENT PROGRAM

Advanced Placement (AP) courses are rigorous and are taught at the college level by qualified William Tennent teachers. Students may earn college credit at participating colleges and universities by achieving a designated score (Check with the individual colleges regarding their policies for awarding credits).

It is strongly recommended that all students in the Advanced Placement classes take the Advanced Placement Examination administered in May by the College Board. Research has shown that students who successfully complete their AP course and take the AP exam are more likely to be successful at the college level.

The AP exam costs approximately \$85. **There are special provisions for students with a verified financial hardship.**

AP grades are based on mastering course content and meeting national standards. Students who procrastinate, who perform poorly on tests, and who do not read independently may struggle and/or earn low grades in AP courses.

The course descriptions included in this supplement are more detailed than what you will find in the *WTHS Program of Studies*. These descriptions include AP course content as well as the expectations for AP students. This supplement aims to assist you as you plan for your academic future at William Tennent High School.

WTHS AP EXAMINATIONS

All AP students will be expected to schedule and take the Advanced Placement Exam administered by the College Board.

ART

A.P. STUDIO ART

8140 1.0 12

A.P. Studio Art is built around the framework of a first year college art course. Students will be immersed in a culture that cultivates their creativity while teaching them the disciplines necessary to be successful. Students must be focused and willing to spend substantial time outside of the class on their work. A typical student will be juggling multiple assignments at varying degrees of completion. A strong work ethic with adherence to deadlines will be essential to success in A.P. Studio Art. Each student for the year will choose an area of concentration to focus roughly half their artwork on; a few examples from the past: Portraits, Eastern Cultures, City Streets, Emotions, The Zodiac. A typical week will have a new technique, an in-class assignment, a sketchbook assignment, a finished homework assignment, class critiques discussing art, and a written segment to express individual points of view. Unlike other A.P. exams that use a written test, the Studio Art exam is a portfolio of slides.

ENGLISH

A.P. LANGUAGE AND COMPOSITION

0151 1.0 11-12

This is a high school English class taught as a college seminar; therefore, student participation is expected.

Students prepare for this course by completing a summer assignment. The summer assignment focuses on reading works that exemplify good writing styles, writing an essay or journal entries, and reviewing Greek and Latin root words to prepare for the upcoming PSSA, SAT, and AP exams.

Students write daily either in class or at home; writing assignments range from short journal responses to good copies of essays and research reports. Major writing units feature: the literature of letters, the autobiographical essay, the rhetoric of logic and argument, and research. For reading assignments, the primary focus of this course is the essay and non-fiction works from the course text Readings for Writers, as well as short essays from current periodicals and literature. Students can expect to read one chapter per week, in addition to shorter pieces from sample AP exams and other literature selections. Additional texts read in this course: The Adventures of Huckleberry Finn, King Lear, Ethan Frome, The Night Thoreau Spent in Jail, The Importance of Being Earnest, and The Piano Lesson.

Most of the essays will be completed in class to better prepare students for the actual timed-exam which occurs in May. Students will also prepare for the AP exam through practice examinations, holistic-scoring exercises, writing conferences, peer editing and grammar review.

A.P. LITERATURE AND COMPOSITION

0152 1.0 11-12

This is a high school English class taught as a college seminar; therefore, student involvement is expected.

There is a summer assignment that requires students to read both Seamus Heaney's 2001 translation of Beowulf and a novel from the AP reading list, and to complete a series of reading journal entries as they read. On the first class day in September the journals are due. In addition to taking a reading quiz on Beowulf, after a unit on formal academic writing, students will compose a major formal paper on their summer reading.

Throughout the course, most of the homework will be completing the assigned readings. Among these are shorter novels including Kafka's Metamorphosis and Conrad's Heart of Darkness; longer novels such as Amy Tan's The Joy Luck Club and Bronte's Jane Eyre; plays including Hamlet, Othello, Waiting for Godot, and The Piano Lesson; and longer poems such as The Canterbury Tales, "The Love Song of J. Alfred Prufrock" and "The Waste Land." Major units for the year include Narrative Poetry and Fiction, Poetry, Drama, and The Modern Novel and Modern Poetry. Students should expect to read a significant work every two to three weeks on average, to complete a study guide as they read, and to have a major test or essay on each. Students will also be responsible for vocabulary study as well as grammar and punctuation reviews throughout the year. Students will have direct instruction on writing thesis papers and will be expected to apply in their papers the principles that are discussed in class.

Most of the essays will be completed in class in order to better prepare students for the actual A.P. test in May. In the second semester, students will submit a short research paper which will be researched and written outside of class, however.

Students will also prepare for the A.P. examination through practice exams, worksheets and activities, peer editing, and direct instruction.

MATHEMATICS

A.P. CALCULUS AB

2151 1.0 11-12

A college-level course equivalent to first semester college calculus is for students who have successfully completed Trigonometry/Statistics with a demonstrated aptitude for higher-level mathematics and who will pursue college majors in mathematics, science, computer science, or engineering. Students will be exposed to a rigorous development of the concepts of calculus including limits, derivatives, applications of derivatives, integrals, and applications of integrals. Calculus AB is primarily concerned with developing the students' understanding of the concepts of calculus and providing experience with its methods and applications. The courses emphasize a multi-representational approach to calculus, with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally. The connections among these representations are also important.

1) SUMMER ASSIGNMENT

- i) Read The Curious Incident of the Dog in the Night Time by Mark Haddon and respond to prompt during the first week of school.
- ii) Complete a packet with approximately 30 questions to demonstrate mastery of calculator skills.
- iii) Complete a thorough review of all Algebra and Trigonometry skills necessary for success in Calculus.

2) USUAL CLASS PATTERN

- i) Approximately 1 section (25 problems) every 2-3 days.
- ii) Quizzes throughout each Chapter.
- iii) Test at the end of each Chapter.
Note: Assessments will consist of released AP & teacher-created questions.
They will have a section where calculators are permitted and one where they are not.
- iv) Project for each chapter.
- v) Group work on released AP questions/problems each week.

3) STRUCTURE OF AP CALC EXAM (you will take a FULL LENGTH practice exam in April)

Section I: 45 Multiple Choice questions – 1 hour 45 minutes
(28 without a calculator & 17 with a calculator)

Section II: 6 Free Response questions – 1 hour 30 minutes
(3 with a calculator & 3 without a calculator)

A.P. CALCULUS BC

2152 1.0 11-12

A college-level course equivalent to second semester college calculus is for students with a demonstrated aptitude for higher-level mathematics; who will pursue college majors in mathematics, science, computer science, or engineering; and who have completed a first-level Calculus course. Students will briefly review the core calculus concepts including limits, derivatives, applications of derivatives, integrals, and applications of integrals. They will then study differential equations, improper integrals, integration by parts, partial fractions, logistic applications, L'Hopital's Rule, derivatives and integrals of parametric, polar and vector functions, polynomial approximations of infinite series, Taylor and MacLaurin series, and radius of convergence. Students are expected to complete summer assignments. Calculus BC is primarily concerned with developing the students' understanding of the concepts of calculus and providing experience with its methods and applications. The course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally. The connections among these representations are also important. Calculus BC is an extension of Calculus AB rather than an enhancement: common topics require a similar depth of understanding. This course is intended to be both challenging and demanding.

1) SUMMER ASSIGNMENT

- i. Read a nonfiction book (there are four choices) and respond to prompt during the first week of school.
- ii. Complete two full-length AB Tests.
- iii. Assist AB students with their Summer Assignment

2) USUAL CLASS PATTERN

- i. Approximately 1 section (25 problems) every 2-3 days.
- ii. Quizzes throughout each Chapter.
- iii. Test at the end of each Chapter.

Note: Assessments will consist of released AP & teacher created questions.

They will have a section where calculators are permitted and one where they are not.

- iv. Project for each chapter.
- v. Group work on released AP questions/problems each week.

3) STRUCTURE OF AP CALC EXAM (you will take a FULL LENGTH practice exam in April)

Section I: 45 Multiple Choice questions – 1 hour 45 minutes
(28 without a calculator & 17 with a calculator)

Section II: 6 Free Response questions – 1 hour 30 minutes
(3 with a calculator & 3 without a calculator)

A.P. STATISTICS

2142 1.0 12

The purpose of the AP Course in statistics is to introduce students to the major concepts and tool for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes:

1. Exploring Data: Describing patterns and departures from patterns.
2. Sampling and Experimentation: Planning and conducting a study.
3. Anticipating Patterns: Exploring random phenomena using probability and simulation.
4. Statistical Inference: Estimating population parameters and testing hypotheses.

The AP Statistics curriculum encourages in-depth exploration of topics. Many learning opportunities are available such as textbook activities, calculator exploration, video series, writing assignments, projects, and supplementary activities.

Students are expected to read regularly and to complete all assignments on time. This is critical due to the pace of the class. Generally, three days are spent on each section. Usually, a video and an activity and/or a supplement accompany each unit.

Approximately twelve days are dedicated to exam preparation. Students work problems from prior exams. A mock exam is given so students can simulate the AP exam with consideration to time-management and content knowledge.

There are one to three quizzes per unit depending on the number of sections in the unit. There is a unit test for every unit. Writing assignments and activities are given for every unit. Assignments are checked for completion and statistical soundness.

Summer Assignment: Students are required to read an assigned book, complete textbook assignments, and prepare to take assessments within the two weeks of school.

MUSIC

A.P. MUSIC THEORY 7180 1.0 10-12

This course covers first year college music theory in depth and detail. Students are required to spend “after school” time in the music lab at least once weekly. Students study advanced theory, harmony and ear training in preparation for the AP Music Theory Exam. This includes four-part writing using functional harmony from the common practice period, melodic, rhythmic, and harmonic dictation, and solfeggio. Homework assignments are graded and assigned daily. Students will be required to complete a summer assignment. This is an excellent class for students wishing to compose music or perform music at a higher level.

SCIENCE

A.P. BIOLOGY 3121 1.0 11-12

This college-level course follows the recommended sequence of topics listed by the College Board. Topics studied include, but are not limited to: evolution, ecology, chemistry, cells and transport, photosynthesis, cellular respiration, genetics, taxonomy, and body systems. Students will experience 12 mandatory college level labs that are used to reinforce topics learned during class lectures and activities. This course mimics a first year entry college biology course both in **rigor and in time**. Homework consists of reading the text each night, finishing lab write-ups, projects (these are actual released AP Biology test questions and essays), or studying for a test (again, these are actual released AP Biology test questions and essays). An Introduction to Evolution summer assignment (the first 3 chapters covered in class) will be assigned along with a practice AP essay.

A.P. CHEMISTRY 3131 1.0 11-12

AP Chemistry, a college-level course, covers the following topics as recommended by the College Board: structure of matter, states of matter, solutions and concentrations, reactions of matter (acid/base, redox, equilibrium, kinetics, and thermodynamics), stoichiometry, descriptive chemistry, physics, and mathematics. Strong math skills, a basic chemistry course, as well hard work and dedication are needed for success in this course.

Time commitment to AP Chemistry during the year is essential to success. Students should plan to independently read and take notes on every topic covered, complete homework problems a minimum of 3 nights per week, complete The Ultimate Guide to Chemical Equations Handbook, and complete a minimum of 15 labs per year (some with formal lab reports). All tests, given at the completion of topic, include

previous AP exam questions in both multiple-choice and free-response formats. Multiple quizzes will be given throughout the coverage of each topic.

The **summer assignment** consists of a review of topics covered in the honors-level chemistry course. Notes should be taken on each topic and approximately 80 questions from the text will be assigned as practice work. Students are expected to memorize several elements from the periodic table, common ions and solubility rules; quizzes will be given at the beginning of the year on these. Finally, students are required to read a short passage from The Chemistry of Sherlock Holmes and present a case study to the class during the first week of class.

The **AP Exam** consists of two parts, a multiple-choice section and a free-response section; 90 minutes per section is allotted for completion. The multiple-choice section has with 75 questions and students may only use a provided periodic table for reference. The free-response section consists of 2 parts; the first section is allotted 50 minutes and the second section is allotted 40 minutes. This section emphasizes solving in-depth problems and writing essays where knowledge of which principles to apply and how to apply them is the most important aspect of the solution to these problems. The first portion is mathematics-based and students will work on three required questions; calculators are allowed on the free-response section for this portion and equation sheets are also provided. The second portion of the exam is theory-based, including a section on reaction prediction; calculators must be put away as students work on the remaining questions.

A.P. PHYSICS C (Mechanics and Electricity & Magnetism) 3141 1.0 11-12

AP Physics is a college-level course expecting college-level work, taught in high school. The course puts significant requirements on the student, but any student who applies him/herself can be successful. Focus and a strong work ethic are essential for success in AP Physics. This college-level course follows the recommended sequence of topics listed by the College Board. The course concentrates deeply on both mechanics (including motion, forces, gravity, momentum, power, and energy) and electricity/magnetism. This course mimics a first-year entry college physics course both in **rigor and time**. We will be covering about a chapter each week. Assignments for a typical week consist of reading the text, answering 10 conceptual questions, 15-20 problems, and a lab. Quizzes and tests will be given periodically throughout the course. In order to prepare students for the AP exam, the tests given throughout the course are released AP Physics tests. Calculus is taught as needed and applications of calculus occur frequently. However, it is recommended that students have already taken calculus or are concurrently enrolled in calculus. There is a \$15.00 lab fee (due before the end of the school year) required for this course.

Students will be required to complete a **summer assignment** that will cover the first 3 or 4 chapters of the textbook, most of which should be a review from their previous physics course.

SOCIAL STUDIES

A.P. EUROPEAN HISTORY

1131 1.0 11-12

AP European History is a college-level course expecting college-level work, taught in high school. The course puts significant requirements on the student but any student who applies him/herself can be successful. Below is a listing of general expectations and requirements.

1) SUMMER ASSIGNMENT

- i) Read two chapters from the text book.
- ii) Answer two multi-paragraph essay questions on the reading.
- iii) Read Magic Mountain by Thomas Mann and participate in class discussion and test in the first two weeks of school. The book will also be useful throughout the course.

2) USUAL CLASS PATTERN

- i) One Chapter per 5-6 school days.
- ii) Vocabulary Quiz Every Chapter
- iii) Essay in class or as homework almost every chapter
- iv) Test after every chapter (Except # 14, 25, 30,31)
- v) Tests are formatted using 30-45 MC Questions and 10-15 Identifications
- vi) Three research projects (One Group)
- vii) Three long term Geography assignments
- viii) 6-8 DBQ assignments

3) STRUCTURE OF EUROPEAN HISTORY AP EXAM

- (1) Part One 80 multiple-choice questions – 55 Minutes
- (2) Part Two Essays
 - (i) One DBQ no choice 15 Minutes reading time/45 Minutes writing
 - (ii) One FRQ choice from three 35 Minutes
 - (iii) One FRQ choice from three 35 Minutes

A.P. U.S. GOVERNMENT & POLITICS

1141 1.0 11-12

The AP Government course is the equivalent of a college introductory Political Science course. For this reason, in this course the burden of responsibility for learning is greater on the student than in other high school courses. The bulk of the out-of-class work is in the form of chapter review guides that include vocabulary terms and questions for discussion and review that students are expected to complete by the due date. These are not collected; instead, students are regularly quizzed on their knowledge. Thus the main emphasis of homework is not in merely *completing* it but in subsequently *studying* and *mastering* the content.

The topics of study in AP Government follow the College Board outline:

- I. Constitutional Framework
- II. Political beliefs and behaviors of individuals
- III. Institutions that link individuals to the political process
- IV. Institutions of American Government
- V. Public Policymaking
- VI. Civil Liberties & Civil Rights

The textbook for the course is Wilson & DiIulio's American Government. Students will be expected to complete approximately one chapter in the textbook each week. In addition, students will read one book as a summer assignment and one additional assigned book each marking period. Currently, the assigned books are Hardball by Chris Matthews, 1984 by George Orwell, and a student-selected, teacher-approved book in the final marking period. In addition, students are expected to keep abreast of current events by

either reading the newspaper, reading the news on the internet, or watching televised news programs on a regular basis.

The summer assignment for AP Government consists of reading the book Miracle at Philadelphia by Catherine Drinker Bowen and also reading the U.S. Constitution and answering an extensive set of questions aimed at helping the students understand its meaning.

A.P. PSYCHOLOGY

1151 1.0 11-12

Driven by the College Board curriculum, AP Psychology is an in depth investigation into the mind and human behavior. Using as our foundation the nationally acclaimed text Psychology by David Myers, this course takes students on a college level journey into a deeper understating of ourselves and those around us. Units of study are covered in approximately a week and a half followed by small but extremely challenging tests. Structured as a highly independent experience, a monthly calendar/syllabus will guide students through their regularly scheduled text readings and note taking, vocabulary assignments, and Free Response Question essays. Classes will consist primarily of demonstrations, experiments, self-investigations, discussions and debates, and a review of classic theories and research to help the students expand their grasp of their text work. A major emphasis will be placed on psychological experimentation methods and their ethical considerations. As preparation for the course, students will undertake a required summer assignment, consisting of text readings, the completion of supplemental study guides, and the creation of a poster on the early history of Psychology.

The AP Psychology Exam consists of 100 Multiple Choice questions which comprises 2/3 of the exam score (to be completed in 70 minutes) and 2 required FRQs which comprise the remaining 1/3 of the exam score (to be completed in 50 minutes). An intense review for the AP Exam will be carried out utilizing student created glossaries, an analysis of Who's Who in the History of Psychology, and the completion of unit review cards taking the students back through the topics covered in the course. Students will also experience released AP Psychology exams.

Post AP exam activities include the reading of the book Sybil and a more thorough investigation into the diagnosis and treatment of mental disorders, an exploration into psychology in pop culture, and the completion of a student designed group experiment which will be presented in a science-fair style tri-fold display.

A.P. US HISTORY

1121 1.0 11-12

The Advanced Placement Course in United States History is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in United States history from the colonial period to the present. The course prepares students for intermediate and advanced college courses by making demands upon them equivalent to those of full-year introductory college courses. Students are graded for the quality of their work, not merely completion.

The main text used for the course is The American Pageant by Kennedy, Cohen, et al. Supplemental readings include Stephen Ambrose's To America: Personal Reflections of an Historian and Howard Zinn's A People's History of the United States.

- The summer assignment consists of reading two chapters of the text and completing five essays of one and a half to two pages.
- Analytical multiple-choice quizzes are conducted following the completion of each chapter in the text. There is approximately a quiz each week of the year.
- In addition to quizzes, there is a great deal of written work in the form of essays and evaluating texts and documents.

- Each marking period students will complete a major research assignment. The vast majority of the project will be completed outside of the class.
- One of the goals of this course is to prepare students for the Advanced Placement exam in early May. The exam consists of multiple-choice questions, free-response questions and a document-based question.

WORLD LANGUAGES

A.P. SPANISH

5153 1.0 12

Goals and Objectives:

- The teacher will provide students the opportunity to listen, speak, read, and write in Spanish with the rigor demanded of college students in their fifth and sixth semester of Spanish study.
- The class will be conducted almost entirely in Spanish.
- Students will understand audio-material presented in a variety of contexts (narratives, dialogues, news reports, reports from native speakers, songs, etc.)
- Students will express themselves in a variety of ways taking into account different styles for different audiences (informal dialogues, formal presentations, arguing, persuading, informing, etc.)
- Students will read a variety of texts including short stories, poems, letters, newspaper articles, excerpts from novels, and nonfiction articles.
- Students will write in a variety of formats accounting for different styles for different audiences (postcards, e-mails, memos, poems, curriculum vitae, expository compositions, formal essays, persuasive essays, informative reports, etc.)
- Students are required to learn 2 lists of specialized vocabulary per week.
- The midterm and final exams will consist of modified AP Examinations.

The AP Exam : The exam contains 4 units. Unit 1—Listening Comprehension with four sections, Unit 2—Reading Comprehension, Unit 3—Writing with four sections, Unit 4—Speaking with two sections.

Summer Assignment: Students are required to read one news article per week for a total of 8 articles. Students will write a summary and a reaction for each article.