



Advanced Placement® (AP®) Program Expectations and Commitment Form **2019 – 2020 School Year**

AP® courses are offered to GRACE students committed to rigorous academic work. GRACE expects students will carefully evaluate their own interest level, responsibility, class schedule, and participation in school and non-school related activities as part of the process of committing to enroll in any AP® course. Students not fully prepared for such courses may need additional support outside of the school setting.

GRACE AP® Requirements:

- General prerequisites include an A or B in a previous AP® course, an A or B average in the subject area of the AP® course, or a 3 on a previous AP® test in the subject area; recommendation from the course instructor; appropriate test scores on standardized tests as used for placement; and a minimum 3.0 overall GPA. Advanced Placement® courses will have additional fees assessed for AP® testing.
- Students are required to take the College Board AP® exam in order to complete the course. The College Board charges a fee per exam (currently \$94.00).
- Students should understand that additional work outside the class is necessary in order to score a 3, 4, or 5 on the AP® exam and receive college credit from colleges (score requirements differ from college to college) AP® students may be required to buy supplementary materials like study guides or novels.
- Students should anticipate at least one hour of additional homework per night for an AP® course.
- Because AP® students are required to take the College Board AP® exam, they will not be required to take the GRACE final exam in that subject. If a student does not take the AP® exam, they will receive a zero for the exam in the AP® course. Students will not be required to attend any classes on the day of the AP® exam. AP® classes will continue the remainder of the year with graded work assignments.
- Homework passes do not apply to class assignments in the GRACE AP® Program. Homework will be assigned over summer and holiday vacations. Absences do affect performance and instruction.

AP® Overview:

AP® courses are offered to students committed to rigorous academic work. GRACE expects students will carefully evaluate their own interest level, responsibility, class schedule, and participation in school and non-school related activities as part of the personal process of committing to enroll in any Advanced Placement course.

AP® Guidelines for Inclement Weather:

Students should be working on homework, projects, reading, and studying for part of the day at least. All electronic assignments will be due at the time specified on Talon unless the teacher gives further directions.

Students should check Talon regularly for adjustments to the test and assignment schedule.

AP® classes will meet online at their normal (regular scheduled) time using Google hangout, discussion board, anymeet etc. Each AP® teacher will contact his / her students to give directions on how to meet and what the student will need to do to prepare for these times. If we have a general power outage in the area there will be no AP® classes.

Benefits of the Advanced Placement Program

- Earn college credit based on AP® exams (check on individual college websites for credit information)
- Stand out in the competitive college admissions process
- Gain skills that will help you succeed in college
- Broaden your intellectual horizons
- Achieve in college-level courses

Successful AP® Students Are:

- Motivated and dedicated to complete challenging academic work successfully
- Successful time managers (able to multitask, prioritize activities, meet deadlines on time, and balance academic and extracurricular activities)
- Strong organizers of academic resources (ability to manage and maintain textbooks, online resources, notebooks, and other required class resources independently)
- Strong communicators (reading, writing, speaking, and listening skills)

Successful AP® Students Have:

- High interest in learning academic subjects at an advanced, college level
- Well-developed critical thinking skills
- Positive attitudes about engaging in challenging academic work both at school and at home
- Technology skills for digital learning environment

Successful AP® Students will Develop:

- Academic, critical thinking, time-management, and study skills
- Skill in analyzing and synthesizing information in innovative ways
- Increased self-confidence and motivation

Course Descriptions and Summer Work Expectations for AP® Courses:

All students enrolled in an AP® course must complete the AP® Commitment Form as part of the registration process (available at the end of this packet). Please refer to the GRACE Student Parent Handbook for the Drop / Add policy.

The following section provides a brief summary of each course from College Board and an idea of the time and work needed to prepare for each Advanced Placement® course offered. These entries are an approximation of time and assignments outside of class work. Some students will need less time, and some will need more to do the same assignments depending on skill level. It is assumed that an AP® student, having done well in the earlier courses, will have the skill level, interest, and commitment necessary to be successful in a college-level course taught with a college textbook.

English				
Course	Reading	Study Hours	Tests, Essays and Papers	Major Projects

Language & Composition	Nightly, focused on American writing/literature. Dates posted in advance for longer readings. Students must purchase required novels.	Average one hour per class. Includes vocabulary and literary terms, readings, writings. May need out of class help from instructor.	Minimum 3 major grades per quarter; frequent written assignments; researched essays	Summer reading; research projects;
Literature & Composition	2-3 major works per quarter; shorter works throughout. Students must purchase required novels.	1-2 hours/day avg. Includes vocabulary and literary terms, readings, and writing. May need out of class help from instructor.	Minimum 3 major grades per quarter; frequent informal and formal written assignments;	Summer reading assignment/multiple deadlines.

AP® English Language and Composition: The AP® English Language and Composition course aligns to an introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Focusing primarily on American works, students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical and stylistic choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods. Supplemental books required for purchase.

Summer Work:

Students will select and purchase one non-fiction book of interest for summer required reading. The assignment will be on the AP summer work page. Suggested titles include:

- *102 Minutes: The Unforgettable Story of the Fight to Survive Inside the Twin Towers*
- *The Devil in the White City*
- *The Immortal Life of Henrietta Lacks*
- *Seabiscuit*
- *Unbroken: A World War II Story of Survival, Resilience, and Redemption*
- *Amazing Grace- William Wilberforce and the Heroic Campaign to End Slavery*

AP® English Literature and Composition: The AP® English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of poetry and prose to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work’s structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include in-class and out of class

expository, analytical, and argumentative essays that require students to analyze and interpret literary works. Supplemental novels required for purchase.

Summer Work:

Students will select and purchase one fiction novel of interest for summer required reading. The assignment will be on the AP summer work page. Suggested titles include:

- *The Kite Runner*
- *The Poisonwood Bible*
- *Pride and Prejudice*
- *Lord of the Flies*
- *As I Lay Dying*
- *Their Eyes Were Watching God*
- *Frankenstein*

Math				
Course	Reading	Study Hours	Tests, Essays and Papers	Major Projects
Statistics	30-50 pages per week	1-1.5 hrs. /day	4-5 study hours for quizzes and tests; 2-3 unit tests per quarter, weekly problem sets and quizzes	Summer assignments, Major second semester project
Calculus AB, Calculus BC	5-10 pages	1-1.5 hrs. /day	4-5 study hours for quizzes and tests; 2-3 major unit tests per quarter.	Summer assignments, Major 4th quarter project

AP® Calculus AB: AP® Calculus AB is roughly equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. The AP® course covers topics in these areas, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

Summer Work: Four Precalculus review exercises due throughout July. Other optional review exercises will be available for students to ensure that they are ready for the rigor of the course.

AP® Calculus BC: AP® Calculus BC is roughly equivalent to both first and second semester college calculus courses and extends the content learned in AB to different types of equations and introduces the topic of sequences and series. The AP® course covers topics in differential and integral calculus, including concepts and skills of limits, derivatives, definite integrals, the Fundamental Theorem of Calculus, and series. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and

verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

Summer Work: Four AP Calculus AB review exercises with due throughout July.

AP® Statistics: The AP® Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP® Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.

Summer Work: Students will watch and take notes on a one-hour documentary that introduces uses of statistics in our culture. Students will also identify statistics in news articles throughout the summer to create a statistics portfolio. In addition, they will read the first chapter of the textbook and complete a reading guide. Summer work will be completed primarily in July and may be submitted by Wednesday, August 14th.

Science				
Course	Reading	Study Hours	Tests, Essays and Papers	Major Projects
Chemistry	10-20 pages per week	1-1.5hr./day	3 tests/labs per quarter; weekly problem sets and quizzes	Summer assignments
Biology	10-20 pages per week	1-1.5 hr./day	2-3 tests per quarter; 2-3 labs per quarter	Summer reading and assignment; essay writing due every 3 weeks
Physics	10-20 pages per week	1-1.5 hr./day	3 tests/labs per quarter; weekly problem sets and quizzes	Summer reading and assignment; engineering projects including building a trebuchet, cardboard chair and mousetrap car
NEW COURSE: Environmental Science	10-20 pages per week	1-1.5 hr./day	3 tests/labs per quarter; weekly quizzes & case studies.	Summer reading and assignment; at least one major project per semester

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.

Summer Work:

- Write a letter of introduction about yourself. This should be done as soon as possible.
- Read the book *The Hot Zone* by Richard Preston and answer questions related to the reading. I have recommended completion dates throughout the summer in order that your summer will go smoothly without cramming all the work to the last week of the summer.
- The dates are as follow: June 17, July 1, July 15, July 31. On the first full day of school all summer items will be due.

AP® Physics: AP® Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. 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.

Summer Work: Students will read the first three parts of *The Elegant Universe* by Brian Greene and discuss it on a forum. They will also read the first chapter of the text and complete some problems for that chapter.

AP® Chemistry: The AP® Chemistry course provides students with a college-level foundation to support future advanced coursework in chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore topics such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. This course requires that 25 percent of the instructional time provides students with opportunities to engage in laboratory investigations. This includes a minimum of 16 hands-on labs, at least six of which are inquiry based.

Summer Work: Students will review key concepts from chemistry such as significant figures, polyatomic ions, naming rules, writing chemical equations, and converting between units. Practice worksheets are due on the first day of school.

AP® Environmental Science: AP® Environmental Science is a new course for the 2019-20 school year. In this course, students will explore and investigate the interrelationships of the natural world, identify and analyze environmental problems, both natural and human-made, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving/ preventing them. At least one class period per week will be spent in experimentation.

Summer Work: Students will choose a book to read or documentaries to watch from a recommended list. Students will be asked to write about what they’ve learned and be prepared for discussion. All summer work will be due at the beginning of class on the first full day of school.

Social Studies				
Course	Reading	Study Hours	Tests, Essays and Papers	Major Projects

World History	60-80 pages per week	1 hr./day	3-4 major tests per quarter; weekly reading quizzes; 6 major writings per quarter	Extensive summer reading and assignment; 1 major reading/research project/semester
U.S. History	60-80 pages per week	1 hr./day	3 tests per quarter; weekly reading quizzes; 6 major writings/essays per quarter	Extensive summer reading and assignment; 1 major reading/research project/semester
U.S. Government	30-50 pages per week	1 hr./day	10 tests; frequent quizzes	Extensive summer reading and assignment; several major projects
Microeconomics	20-40 pages per week	1 hr./day	10 tests; weekly problem sets or study guides; frequent economic graphing exercises; fast paced course.	Strong math foundation needed. Major project 4th quarter

AP® World History: AP® World History focuses on developing students' abilities to think conceptually about world history from approximately 8000 BCE to the present and apply historical thinking skills as they learn about the past. Five themes of equal importance — focusing on the environment, cultures, state-building, economic systems, and social structures — provide areas of historical inquiry for investigation throughout the course. AP® World History encompasses the history of the five major geographical regions of the globe: Africa, the Americas, Asia, Europe, and Oceania, with special focus on historical developments and processes that cross multiple regions.

Summer Work:

- You will listen/watch/read TWENTY (20) different WORLD news articles before the first day of school. You will create a record of the news articles in the format of a journal (you may use another equally clear format). For each news article, you will record the date, the news agency source (Fox, NRP, etc.) and a several sentence summary of each news article.
- The articles that you will record must deal with the issues, events or people from parts of the world outside of the the United States. The news articles can deal with anything except sports, entertainment or weather (unless the weather is creating an issue/problem/crisis). For example, articles dealing with conflicts (wars), religion, politics, economics, trade, and/or migration would all be great.
- You will submit your journal on the first full day of class.

AP® U.S. History: AP® United States History focuses on developing students' abilities to think conceptually about U.S. history from approximately 1491 to the present and apply historical thinking skills as they learn about the past. Seven themes of equal importance —

identity; peopling; politics and power; work, exchange, and technology; America in the world; environment and geography; and ideas, beliefs, and culture — provide areas of historical inquiry for investigation throughout the course. These require students to reason historically about continuity and change over time and make comparisons among various historical developments in different times and places.

Summer Work: Comparative Study comparing and contrasting 3 specific pre-Columbian Native American societies. Each specific “tribe” or society you choose must be from a different region of North America; i.e. societies that generally made their homes in either the southeastern, northeastern, southwestern or central part of North America. Your analysis must be focused on the societies as they existed prior to first contact with Europeans and must be still in existence upon first contact with Europeans (1492). Your analysis must include, but is not limited to, at least three (3) of the following categories: social issues, political issues, economic and trade issues, religious issues, relationships with other Native American societies, and technological issues. For presentation format choices, please see rubric on the GRACE website.

AP® Microeconomics: AP® Microeconomics is an introductory college-level course that focuses on the principles of economics that apply to the functions of individual economic decision-makers. The course also develops students’ familiarity with the operation of product and factor markets, distributions of income, market failure, and the role of government in promoting greater efficiency and equity in the economy. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts.

No Summer Work

AP® U.S. Government: AP® United States Government and Politics introduces students to key political ideas, institutions, policies, interactions, roles, and behaviors that characterize the political culture of the United States. The course examines politically significant concepts and themes, through which students learn to apply disciplinary reasoning, assess causes and consequences of political events, and interpret data to develop evidence-based arguments.

Summer Work:

- You will listen/watch/read TWENTY (20) different news articles before the first day of school. You will create a record of the news articles in the format of a journal (you may use another equally clear format). For each news article, you will record the date, the news agency source (Fox, NPR, etc.) and a several sentence summary of each news article.
- The articles that you will record must deal with the United States Congress, the United States President, the Federal government, the relationship between the Federal government and state governments, civil rights, and/or civil liberties (no sports, no local news, no weather, etc.)
- You will submit your journal on the first full day of class.

Foreign Language				
Course	Reading	Study Hours	Tests, Essays and Papers	Major Projects
Spanish Language	Varies	1 hr./day	At least 2 tests per quarter; At least 2-3 essays per quarter	Summer reading and assignment;

				attendance and active participation each class period is critical
--	--	--	--	---

AP® Spanish Language and Culture: The AP® Spanish Language and Culture course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP® Spanish Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish. The AP® Spanish Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students’ awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

Summer Work:

- Become familiar with EVERYTHING that is published on the AP® website about this exam.
- Look at the tips that the College Board suggests for you.
- Practice grammar and vocabulary
- 4 Listening comprehension activities
- Read and Journal in Spanish about 4 Current Events in Spanish Speaking Countries

Computer Science				
Course	Reading	Study Hours	Tests, Essays and Papers	Major Projects
Computer Science A	On-line	1-1.5hr./day	7 Tests	14 programming assignments
Computer Science - Principles	On-line	1-1.5hr./day	6 Tests	Performance Tasks - 40% of AP grade:: Create Explore

AP® Computer Science A: AP® Computer Science A is equivalent to a first-semester, college level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP® Computer Science A course curriculum is compatible with many CS1 courses in colleges and universities.

Recommended Prerequisites: The assumed prerequisites for entering the AP® Computer Science A course include knowledge of basic English and algebra. A student in the AP® Computer Science A course should be comfortable with functions and the concepts found in the uses of function notation, such as $f(x) = x + 2$ and $f(x) = g(h(x))$. It is important that students and their advisers understand that any significant computer science course builds upon a foundation of mathematical reasoning that should be acquired before attempting such a course.

Summer Work: Students should refresh their Java skills learned from taking the Introduction To Java which is the prerequisite for Java AP.

AP® Computer Science - Principles: The AP® Computer Science Principles course is designed to be equivalent to a first-semester introductory college computing course. In this course, students will develop computational thinking vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course is unique in its focus on fostering student creativity. Students are encouraged to apply creative processes when developing computational artifacts and to think creatively while using computer software and other technology to explore questions that interest them. They will also develop effective communication and collaboration skills, working individually and collaboratively to solve problems, and discussing and writing about the importance of these problems and the impacts to their community, society, and the world.

Recommended Prerequisites: It is recommended that a student in the AP® Computer Science Principles course should have successfully completed a first year high school algebra course with a strong foundation on basic linear functions and composition of functions, and problem solving strategies that require multiple approaches and collaborative efforts. In addition, students should be able to use a Cartesian (x, y) coordinate system to represent points in a plane. It is important that students and their advisers understand that any significant computer science course builds upon a foundation of mathematical and computational reasoning that will be applied throughout the study of the course.

Summer Work: Students should download Processing and become familiar with it. <https://www.processing.org/>. The is Tutorials and Reference material on the Web site.

Students should set up an account on MIT's website to learn SCRATCH.
https://scratch.mit.edu/?utm_source=next.36kr.com.



Advanced Placement® (AP®) Student Commitment Form/Contract
2019 – 2020 School Year

We understand the expectations and commitment required for the AP® Program for the 2019 - 2020 school year and for each individual course offered.

Printed Student Name (Legible first and last name)

Student Signature

Date

Parent/Guardian Signature

Date

AP® courses committed to for the 2019 - 2020 school year:

1. _____

2. _____

3. _____

*Students ARE REQUIRED to pay for and to take the AP® exam.

*Homework passes do not apply in AP® courses.