

# The College Board Advanced Placement (AP) Examinations

**Review Dates:** April 1994, February 2000, and January 2008

**Effective Dates:** April 1994–Present

**Organization Description:** The College Board, founded in 1900, is a national, nonprofit association with a current membership of 2,700, including colleges and universities, secondary schools, university and school systems, and education associations and agencies. The College Board supports major guidance, admissions, and placement programs; conducts professional development and training activities; provides national and regional forums; carries out research and policy studies and special activities; and publishes a variety of books, newsletters, and magazines.

Operational phases of most College Board programs are carried out under a contract with the Educational Testing Service (ETS) in Princeton, New Jersey, a separate and independently governed organization. In addition to the College Board's headquarters in New York City, there are regional offices in every section of the country.

The AP Program began in 1952 when three universities and three college preparatory schools proposed a plan of college-level courses and examinations for the later years of high school. The intent was to facilitate students' transition from school to college by enriching the high school curriculum and increasing the academic challenge to able students.

College faculty members and high school Advanced Placement (AP) teachers develop AP courses based on surveys of relevant college-level courses. The resulting course description booklets explain the course objectives and content of each AP course, as well as the types of questions the students may encounter.

A major portion of each AP examination is in a free-response format and may require essays, analyses of historical documents, evidence of oral language fluency, portfolios, and problem-solving. These free-response sections are evaluated by thousands of professors and AP teachers at the annual AP Reading in June.

The Advanced Placement (AP) Program provides students the opportunity to pursue college-level studies while still in

secondary school and to receive advanced placement, credit, or both, in college. The AP Program is designed to accelerate learning, reward achievement, and enhance both high school and college programs.

The AP Program is offered in approximately 50 percent of the nation's high schools. As of the 1999–2000 school year, AP offers a total of 32 exam titles. There are approximately 2,900 postsecondary institutions that grant credit for satisfactory AP exam grades. The AP Program is open to any secondary school that is willing to organize the courses and administer the examinations each May.

The Program helps interested schools establish college-level courses; furnishes and grades examinations based on the learning goals set forth in the AP course descriptions; sends examination grades to students, their schools, and their designated colleges; supports and conducts appropriate research; and develops new services and products that enhance quality education.

The AP exams contain both multiple-choice and free-response questions, the latter requiring students to organize their knowledge and write clear, coherent answers that demonstrate their understanding of the subject. Most of the examinations are three hours long; those for semester courses are up to two hours long.

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**Source of Official Student Records:** For information about the AP Program and its policies: College Board Online®: [www.collegeboard.org/ap](http://www.collegeboard.org/ap); Advanced Placement Program, The College Board, 45 Columbus Avenue, New York, NY 10023, (212) 713-8066, or contact the College Credit Recommendation Service, American Council on Education, One Dupont Circle NW, Suite 250, Washington, DC 20036-1193, e-mail: [credit@ace.nche.edu](mailto:credit@ace.nche.edu).

For information on ordering, administering, and returning AP examinations, contact AP Services, Educational Testing Service, P.O. Box 6671, Princeton, NJ 08541, (609) 771-7300, Fax: (609) 771-7681, e-mail: [apexams@info.collegeboard.org](mailto:apexams@info.collegeboard.org). To order AP publications, contact AP Order Services, P.O. Box 6670, Princeton, NJ 08541, (609) 771-7243, College Board Online store (use the link on any AP web page).

**How Examination Results Are Reported:** To obtain a total grade of 3 or higher on a typical AP exam, students need to answer approximately 50 percent of the multiple-choice questions correctly and to do acceptable work on the free-response section. The score on a multiple-choice section is based on the number of questions answered correctly minus a fraction of the number answered incorrectly. No points are deducted or awarded for unanswered questions. The free-response booklets are evaluated by faculty consultants each June at the AP Reading. Each response is scored individually by a faculty consultant who has been trained to assess that question accurately and consistently.

Final grades, based on the student's entire examination (with free-response and multiple-choice questions weighted as the development committee in each subject area directs) are reported on a five-point scale: 5 = extremely well qualified, 4 = well qualified, 3 = qualified, 2 = possibly qualified, 1 = no recommendation. Participating colleges normally honor grades of 3 or higher. ACE recommends that colleges and universities award credit for AP grades of 3 or better but also notes that the practice of granting provisional credit for a grade of 2 is becoming more frequent because comparability studies show that many of these students are possibly qualified. The credit is made permanent if the student satisfies another criterion, such as successfully completing the next course in the discipline.

For most AP subjects for which college grade comparability studies have been conducted, results indicate that college students earning a B generally earn a grade of 3 or 4 when given a portion of the AP examination in that subject. Similarly, those with an A most often receive a 4 or 5. In some subjects, an AP grade of 2 is received most often by college students who had earned a C in those courses.

**Summary of ACE Review:** The CREDIT staff at ACE determined that The College Board's Advanced Placement Program merited a program review rather than an exam by exam review. The review was conducted on February 1–2, 2000 at the Educational Testing Service located in Princeton, New Jersey. A total of 31 exams were presented for review. Three new exams and twenty-eight for a five year re-review. An extensive set of materials (Publishers Check List) including copies of all program publications, sample tests, and test development manuals and procedures were made available to the

team. In addition to the ACE reviewers, participants at the review included both ETS staff and College Board members. The latter made several presentations to the review team which were detailed and well-documented. Throughout the review there was ample opportunity for questions and answers covering all aspects of the AP Program. Those reviews concerned with examination content looked carefully at the procedures the AP Program uses in identifying the appropriate content and concluded that these procedures are more than adequate, and in some case quite noteworthy. The team members concerned with technical adequacy of the exams concluded that ETS has established standards for test reliability, decision consistency, and other statistical indicators of overall test quality. In all cases these standards exceed minimum requirements and frequently contribute to the development of tests with superior technical qualities.

**Content Validity:** The review panel carefully examined the procedures AP uses in identifying the appropriate content for the exams, the way in which experienced faculty are involved in shaping the content specifications and in writing and reviewing items, and the various quality assurance mechanisms used in the program. It concluded that these procedures are more than adequate to meet the concerns of ACE's faculty reviewers. In fact, a number of current AP procedures are noteworthy in the degree to which they address these concerns.

■ Curriculum surveys completed by institutional faculty are routinely conducted as a first step in the development of each new test. Additional surveys, including recommendations of professional associations, are conducted to reflect changes in the field. Thus, new test specifications are developed as needed to meet contemporary institutional faculty practices in terms of course content.

■ AP development committees, composed of at least three experienced college and university teaching faculty members and three secondary teachers currently teaching AP courses, are responsible for major content decisions. Obtaining a clear definition of content for the exams is strongly emphasized, and the item-writing directions stress the importance of the diverse cognitive domains. Committee members write most of the test items that are used in the exams. These items are then edited by professional ETS writers well versed in the content area.

■ The AP program encourages students, secondary school teachers, and interested faculty members to evaluate the tests. A survey of college faculty seeks suggestions for improvement, asks about course relevance, and permits the identification of "problem" items in the current test. These results are used by the development committees when crafting new editions of the test.

These strategies are used by the AP program to ensure content validity. Further, these procedures ensure clear definitions of the achievement domains that each test is intended to sample. These strategies involve a far more extensive sampling of college faculty opinion and are systematically employed. The College Credit Recommendation Service judged these procedures to be more than adequate for the AP exams.

**Technical Adequacy:** ETS has established standards for test reliability, decision consistency, and other statistical indicators of test quality; these values meet or exceed those used by ACE technical reviewers. Statistical information is documented and available in technical and summary reports. Comparability studies, which gather data on AP score recipients from colleges and universities, are used to establish the AP grading system. The following procedures and practices in the area of technical quality seem worthy of commendation:

■ The values obtained by ETS for various statistical indicators of technical quality generally exceed minimum standards.

■ The careful and extensive data analysis procedures used by ETS contribute to the development of tests with superior technical qualities.

### *Art/History of Art*

**Credit Recommendation:** At the lower division baccalaureate/associate level, 6 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour examination covering a full-year introductory course in art history (primarily Western art, with some attention to the art of non-European cultures). It consists of 60 minutes of multiple-choice questions. It also includes 60 minutes of short essays based on slides; and two 30-minute essays that are designed to address typical and significant problems in art history, frequently pertaining to such issues as the nature of influence, stylistic development, or the relationship of a work of art to its historical context. One of the 30-minute essays requires students to discuss in depth at

least one example of a work from a non-European culture. The essay focuses on a preannounced theme.

**Skills Measured:** The sixty-minute multiple-choice section measures the student's knowledge of the history of art, including basic information about artists, schools, and movements; chronological periods and specific dates; and the subjects, styles, and techniques of particular works of art. The other sixty-minute section of short essays, based on slides, measures the student's knowledge of style, iconography, architectural structure, and the varying context of ideas and social situations in which works of art have been created. The two thirty-minute essays address typical and important problems in the history of art.

### *Art/Studio Art (Drawing Portfolio or General Portfolio)*

(Formerly Art/Studio, Drawing, or General Portfolio)

**Credit Recommendation:** At the lower division baccalaureate/associate level, 6 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** Instead of taking a written examination, Studio Art candidates are required to produce a portfolio - either General or Drawing - for evaluation prepared and submitted according to the specifications detailed on the Studio Art poster.

**Skills Measured:** Each portfolio contains three sections: Quality (for which actual artwork is submitted); Concentration (an in-depth, individual project); and Breadth (demonstration of a wide range of experience). Work for the Concentration and Breadth sections is submitted in slide form.

### *Biology*

**Credit Recommendation:** At the lower division baccalaureate/associate level, 8 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour examination covering a full year introductory college course in biology with laboratory. It includes 90 minutes of multiple-choice questions about representative content and concepts drawn from across the entire course, and 90 minutes of four required essays that encompass broader topics.

**Skills Measured:** Both sections of the exam test the student's understanding of those ideas that unite the major content areas: molecules and cells; heredity and evolution; and organisms and populations. Both sections may include questions based on the objectives of 12 AP Biology laboratory investigations.

## Calculus AB

(Formerly Mathematics/Calculus AB)

**Credit Recommendation:** At the lower division baccalaureate/associate level, 3–4 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** The Calculus AB examination covers differential and integral calculus topics that are typically included in an introductory Calculus I college course. The 3-hour and 15-minute examination is made up of 105 minutes of multiple-choice questions and 90 minutes of free-response questions. Section I, the multiple-choice section, contains two parts: Part A (28 questions in 55 minutes; no calculator permitted) and Part B (17 questions in 50 minutes for which a graphing calculator is required). Section II, the free-response section, contains two parts: Part A (3 questions in 45 minutes; a graphing calculator is required) and Part B (3 questions in 45 minutes; no calculator is permitted). During the timed portion of Part B of Section II, students are permitted to continue to work on questions in Part A, but they will not be permitted to use a calculator during this time.

**Skills Measured:** The examination covers material offered in a one-year college introductory differential and integral calculus mathematics course. A graphing calculator is required for Part B of the multiple-choice section and for Part A of the free-response section.

## Calculus BC

(Formerly Mathematics/Calculus BC)

**Credit Recommendation:** At the lower division baccalaureate/associate level, 6–8 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour and 15-minute examination made up of 105 minutes of multiple-choice questions and 90 minutes of free-response questions. Section I, the multiple-choice section, contains two parts: Part A (28 questions in 55 minutes; no calculator is permitted) and Part B (17 questions in 50 minutes; a graphing calculator is required). See Calculus AB, above, for more details. Students may take only one AP Calculus examination in a given year. Students taking the Calculus BC examination will receive a Calculus AB subgrade in addition to the Calculus BC grade.

**Skills Measured:** The Calculus BC exam covers the Calculus AB topics as well as additional topics in differential and integral calculus, and series. Both courses require a

similar depth of understanding of common topics. The Calculus BC topics are typically included in a two-semester sequence (Calculus I and II) at the college level. A graphing calculator is required for Part B of the multiple-choice section.

## Chemistry

**Credit Recommendation:** At the lower division baccalaureate degree level, 8 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour examination covering a full-year introductory course in chemistry with laboratory. It includes 90 minutes of 75 multiple-choice questions with broad coverage and 90 minutes of comprehensive problems, essay topics, and questions requiring the determination of products of chemical reactions. Students may not use calculators for the multiple-choice section of the exam. In the free-response section, calculators are permitted for the first two free-response questions only. A list of commonly used chemistry equations will be provided for use only on the free-response section.

**Skills Measured:** The multiple-choice section measures a broad range of chemistry knowledge. The examination measures a student's knowledge of comprehensive problems and questions requiring students to determine products of chemical reactions.

## Chinese Language and Culture

**Credit Recommendation:** At the lower division baccalaureate/associate degree level, 6 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 2-hour and 45-minute exam covering the equivalent of a fourth semester college/university course in Mandarin Chinese. Section I consists of all multiple-choice questions that assess communication skills in the interpersonal and interpretive modes using listening and reading questions. Section II consists of free-response questions that assess communication skills in the interpersonal and presentational modes, as well as cultural knowledge, by requiring the student to produce written and spoken responses. It requires students to narrate a story, write a letter, respond to an e-mail message, relay a telephone message, participate in a conversation, make a cultural presentation, and make a presentation on a plan for an event. Each part of the exam contributes a specific portion of the final grade. Grouped by communicative mode, the various parts contribute as follows: Inter-

pretive—40 percent, Interpersonal—30 percent, and Presentational—30 percent. Grouped by language modality, the various parts contribute as follows: Listening—25 percent, Reading—25 percent, Writing—25 percent, and Speaking—25 percent.

**Skills Measured:** The examination assesses interpretive, interpersonal, and presentational communication skills in Mandarin Chinese, along with knowledge of Chinese culture.

## Computer Science A

**Credit Recommendation:** At the lower division baccalaureate degree level, 3–4 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour examination (75 minutes of multiple-choice questions and 105 minutes of free-response questions) that covers topics in a first-semester introductory college course in computer science. Both Computer Science examinations include 5–10 multiple-choice questions and one free-response question based on a Case Study in C++.

**Skills Measured:** The examination measures a student's knowledge of programming in C++, programming methodology (including recursion), and procedural abstraction. It also includes algorithms, data structures, and data abstraction.

## Computer Science AB

**Credit Recommendation:** At the lower division baccalaureate degree level, 6–8 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour examination (75 minutes of multiple-choice questions and 105 minutes of free-response questions) that covers topics in a full-year introductory college course in computer science. Both Computer Science examinations include 5–10 multiple-choice questions and 1 free-response question based on a Case Study in C++.

**Skills Measured:** The examination covers a full-year introductory college course in computer science, including all of the topics in Computer Science A as well as more in-depth algorithm analysis (Big - Oh notation) and dynamic data structures.

### ***Economics/Macroeconomics***

**Credit Recommendation:** At the lower division baccalaureate/associate level, 3 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 2-hour and 10 minute examination (70 minutes of multiple-choice questions, 10 minutes to read and plan answers to the free-response questions, and 50 minutes of free-response questions) on a one-semester introductory college course.

**Skills Measured:** The examination measures a student's knowledge of major concepts, including basic economic concepts, measurement of economic performance, national income and price determination, and international economics, and growth.

### ***Economics/Microeconomics***

**Credit Recommendation:** At the lower division baccalaureate/associate level, 3 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 2-hour and 10 minute examination (70 minutes of multiple-choice questions, 10 minutes to read and plan answers to the free-response questions, and a 50 minutes of free-response questions) on a one-semester introductory college course.

**Skills Measured:** The examination measures a student's knowledge of major concepts, including basic economic concepts; the nature and functions of product markets; factor markets; and efficiency, equity, and the role of government.

### ***English/Language and Composition***

**Credit Recommendation:** At the lower division baccalaureate/associate degree level, 6 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour and 15-minute examination covering a full-year introductory college course in English language and composition. Section I (1 hour) consists of multiple-choice questions, and Section II (2 hours and 15 minutes) is composed of free-response questions, including a 15-minute reading period. Two of the essays address the topics related to rhetoric and the third essay requires a synthesis of sources.

**Skills Measured:** The examination measures students' skills in analyzing prose passages and asks them to demonstrate their composition skills by writing essays in various rhetorical modes. The examination also measures students' ability to synthesize information from a variety of sources to inform their own discussion of a topic.

### ***English/Literature and Composition***

**Credit Recommendation:** At the lower division baccalaureate/associate level, 6 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour examination covering a full-year introductory college English course. Includes 60 minutes of multiple-choice questions and 120 minutes of free-response questions.

**Skills Measured:** The examination covers a one-year introductory literature and composition course. The examination tests the student's ability to read selected poems and prose passages analytically and to write critical or analytical essays based on poems, prose passages, and complete novels or plays.

### ***Environmental Science***

**Credit Recommendation:** At the lower division baccalaureate/associate level, 4 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour examination covering a one-semester introductory college course in environmental science with laboratory. The exam includes 90 minutes of multiple-choice questions (100 questions, constituting 60 percent of the final grade) that are designed to cover the breadth of the student's knowledge and understanding of environmental science and 90 minutes of free-response questions (4 required questions, constituting 40 percent of the final grade). The free-response questions consist of one data-set question, which requires students to analyze and interpret sets of data; one document-based question, in which students answer questions related to a given document (such as a pamphlet, advertisement, or newspaper article) and apply their knowledge of environmental science to contexts that are timely, relevant, and authentic; and two synthesis/evaluation questions, which are in-depth essay questions.

**Skills Measured:** The examination measures a student's knowledge and understanding of environmental science and their ability to analyze and interpret sets of data and apply their knowledge of environmental science to contexts that are timely, relevant, and authentic.

### ***French Language***

**Credit Recommendation:** At the lower-division baccalaureate/associate level, 6–8 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** Approximately 2 3/4 hours in length (84 minutes of multiple-choice questions on listening and reading; 75 minutes of free-response writing and speaking).

**Skills Measured:** The examination evaluates performance in the use of language, both in understanding written and spoken French and in responding in correct and idiomatic French.

### ***French Literature***

**Credit Recommendation:** At the lower-division baccalaureate/associate level, 6–12 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour examination (80 minutes of multiple-choice questions on literary passages; a 60-minute analysis of a presented text from the required reading list, written in response to specific questions in the text; and a 50-minute essay on one or more required works).

**Skills Measured:** The examination measures a student's ability to understand, analyze, and interpret literary texts; and to write competent critical essays in French.

### ***German Language***

**Credit Recommendation:** At the lower-division baccalaureate/associate level, 6 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 2 1/2-to-3-hour examination, roughly equivalent both in content and in difficulty to an advanced college German language course: approximately 100 minutes of multiple-choice questions on listening comprehension; vocabulary and structure in context; and reading comprehension; 70 minutes of free-response writing and speaking. Vocabulary and structure are tested within modified cloze passages.

**Skills Measured:** The examination evaluates performance in the use of the language, both in understanding written and spoken German and in responding with ease in correct, idiomatic German.

### ***Government and Politics/Comparative***

**Credit Recommendation:** At the lower-division baccalaureate/associate level, 3 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** a 2-hour and 25-minute examination (45 minutes of multiple-choice questions and 100 minutes of free-response questions) on a single-semester introductory college course.

**Skills Measured:** The examination measures a student's knowledge of the It covers an introduction to comparative politics; the sources of public authority and political power; society and politics; citizen and state; political framework; and political change. Five countries form the core of this examination: France, Great Britain, China, Russia/the former Soviet Union, and one of the following: India, Mexico, or Nigeria.

### **Government and Politics/United States**

**Credit Recommendation:** At the lower-division baccalaureate/associate level, 3 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** a 2-hour and 25-minute examination (45 minutes of multiple-choice questions and 100 minutes of free-response questions) on a single-semester introductory college course.

**Skills Measured:** The examination covers the following major content areas: constitutional underpinnings of United State government; political beliefs and behaviors; political parties, interest groups, and mass media; institutions of national government; the Congress, the presidency, the bureaucracy, and the federal courts; public policy; and civil rights and civil liberties.

### **History/European**

**Credit Recommendation:** At the lower-division baccalaureate/associate level, 6 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour and 5-minute examination on a full-year introductory college course in European history from c.1450 to the present. Includes 55 minutes of multiple-choice questions, a 15-minute reading period, a 45-minute exercise on the use of historical evidence (the document-based question or DBQ), and two 35-minute thematic essays chosen from several offered (for each essay, 5 minutes of planning time is recommended).

**Skills Measured:** The examination covers material offered in a one-year introductory course in European history from 1450 to the present. Questions cover intellectual-cultural, political-diplomatic, and social-economic history.

### **History/United States**

**Credit Recommendation:** At the lower-division baccalaureate/associate level, 6 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour and 5-minute examination on a full-year introductory college course in United States history on the period from the first European explorations of the Americas to the present. Includes 55 minutes of multiple-choice questions, a 15-minute reading period and a 45-minute exercise on the use of historical evidence (the document-based question or DBQ), and two selected essays each allotted 5 minutes of planning time and 30 minutes for writing.

**Skills Measured:** The examination covers material offered in a one-year introductory United State history course. The exam covers political institutions and behavior, public policy, social and economic change, diplomacy and international relations, and cultural and intellectual developments.

### **Human Geography**

**Credit Recommendation:** At the lower division baccalaureate/associate level, 3 semesters hours are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour and 10-minute exam covering a one-semester introductory course in human geography. Section I lasts 60 minutes and consists of 55 multiple-choice questions. Section II lasts 130 minutes and consists of 3 free-response questions: a document-based question, a change over time essay, and a comparative essay. Each section accounts for half of the student's grade.

**Skills Measured:** The examination assesses population processes; cultural patterns; innovation and diffusion; the political organization of space; models of urban and agricultural land use; industrialization and economic development; and globalization. Students will interpret spatial relationships expressed in maps, graphs, diagrams, and tables; analyze contemporary world issues using geographic concepts; and demonstrate geographic literacy.

### **Italian Language and Culture**

**Credit Recommendation:** At the lower division baccalaureate/associate level, 6 to 8 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 2-hour and 45-minute examination covering a fourth-semester college course in Italian. Section I consists of multiple-choice questions that assess communication skills in the interpretive mode using listening and reading questions. Section II consists of free-response questions that assess communication skills in the interpersonal and presentational

modes, as well as cultural knowledge, by requiring the student to produce written and spoken responses. It includes two paragraph completion exercises, two compositions (one on a cultural topic), a spoken narration, and a simulated conversation. Each part of the exam contributes toward the final AP grade as follows: Listening—20 percent, Reading—20 percent, Writing—20 percent, Culture—20 percent, and Speaking—20 percent.

**Skills Measured:** The examination measures cultural understanding and evaluates performance in the use of the language, both in understanding written and spoken Italian and in responding with ease in correct, idiomatic Italian.

### **Japanese Language and Culture**

**Credit Recommendation:** At the lower division baccalaureate/associate degree level, 6 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 2-hour and 40-minute examination covering a fourth-semester college course in Japanese. Section I (approximately 1 hour and 30 minutes) consists of multiple-choice questions that assess communication skills in the interpretive mode using listening and reading questions. Section II (approximately 1 hour and 10 minutes) consists of free-response questions that assess communication skills in the interpersonal and presentational modes, as well as cultural knowledge, by requiring students to produce written and spoken responses. It requires students to participate in an exchange of text-chat messages, write an article, write a web posting on a cultural topic, participate in two conversations, make a school announcement, narrate a story, and make a cultural presentation. Each section accounts for half of the student's grade.

**Skills Measured:** The examination assesses performance in the use of interpretive, interpersonal, and presentational communication skills in Japanese, along with knowledge of Japanese culture.

### **Latin/Literature**

**Credit Recommendation:** At the lower-division baccalaureate/associate level, 6–8 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour examination on courses parallel to middle-level college Latin courses. The exam has a 60-minute multiple-choice section on reading Latin poetry and prose and a 2-hour section of translations and essays on required reading.

**Skills Measured:** The examination measures a student's knowledge of reading Latin poetry and prose and their ability to translate and write essays on required reading.

### *Latin/Vergil*

**Credit Recommendation:** At the lower-division baccalaureate/associate level, 6–8 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour examination on parallel courses to middle-level college Latin courses. The exam has a 60-minute multiple-choice section on reading Latin poetry and prose and a 2-hour section of translations and essays on required reading.

**Skills Measured:** The examination measures a student's knowledge of reading Latin poetry and prose and their ability to translate and write essays on required reading.

### *Music Theory*

**Credit Recommendation:** At the lower-division baccalaureate/associate level, 6 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** An examination comprised of written portions lasting approximately 2 3/4 hours and a sight-singing portion lasting approximately 8 minutes per candidate on a full-year introductory college course in music theory. The exam consists of 70–90 minutes of multiple-choice questions; 60–70 minutes of written free-response questions; and a sight-singing performance section. The multiple-choice section and the written free-response section each account for 45 percent of the total grade; the sight-singing performance accounts for 10 percent. Visual and aural understanding are tested in relation to musical elements and compositional procedures. In the written free-response section, candidates are asked to take melodic and harmonic dictation and to do a part-writing and a composition exercise. In the sight-singing component, candidates are asked to sing two diatonic melodies after a brief practice period.

**Skills Measured:** The examination tests the student's aural and visual understanding of musical structure and compositional procedures. It assumes fluency in reading notation, developed listening skills, and the ability to integrate these skills in sight-singing.

### *Physics B*

**Credit Recommendation:** At the lower-division baccalaureate/associate level, 6–8 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour examination (half multiple-choice, half free-response) covering a full-year noncalculus college course on general physics, intended for students not majoring in a physical science or engineering. Students are permitted to use scientific calculators, including programmable and graphing calculators, for the free-response sections only of the Physics exams.

**Skills Measured:** The examination covers material offered in a one-year noncalculus course on general physics for students who will not be majoring in a physical science or engineering.

### *Physics C/Mechanics*

**Credit Recommendation:** At the lower-division baccalaureate/associate level, four semester hours of credit are recommended for examinees with a score of 3 or above.

**Description:** The ninety-minute examination includes a forty-five-minute multiple-choice section and a forty-five-minute free-response section.

**Skills Measured:** The examination covers material offered in a one-semester introductory course in physics with calculus designed for students planning to major in physical science or engineering.

### *Physics C/Electricity and Magnetism*

**Credit Recommendation:** At the lower-division baccalaureate level, four semester hours of credit are recommended for examinees with a score of 3 or above.

**Description:** The ninety-minute examination includes a forty-five-minute multiple-choice section and a forty-five-minute free-response section.

**Skills Measured:** The examination covers material offered in a one-semester introductory course in physics with calculus designed for students planning to major in physical science or engineering.

### *Psychology*

**Credit Recommendation:** At the lower-division baccalaureate level, three semester hours of credit are recommended for examinees with a score of 3 or above.

**Description:** The two-hour examination includes a seventy-five-minute multiple-choice section and a forty-five-minute free-response section consisting of two mandatory questions.

**Skills Measured:** The examination covers a one-semester introductory college psychology course, including methods, approaches, and history; biological bases of behavior; sensation and perception; states of consciousness; learning; cogni-

tion; motivation and emotion; developmental psychology; personality; testing and individual differences; abnormal psychology; treatment of psychological disorders; and social psychology.

### *Spanish Language*

**Credit Recommendation:** At the lower-division baccalaureate/associate degree level, 6 to 8 semester hours of credit are recommended for examinees with a score of 3 or above.

**Description:** The three-hour examination includes a 1-hour and 20-minute multiple choice section addressing speaking, reading, and listening, and a 1-hour and 40-minute free-response section addressing listening, speaking, reading, and writing skills.

**Skills Measured:** The examination measures the productive skills of reading and writing; the command of standard Spanish grammar and usage; and the use of interpersonal, interpretive, and presentational modes.

### *Spanish Literature*

**Credit Recommendation:** At the lower-division baccalaureate level, six to twelve semester hours of credit are recommended for examinees with a score of 3 or above.

**Description:** The two-hour examination includes a ninety-minute multiple-choice section and a 100-minute free-response section.

**Skills Measured:** The examination measures a student's listening and reading comprehension, a literary analysis, and an analysis of required authors and poetry.

### *Statistics*

**Credit Recommendation:** At the lower-division baccalaureate/associate degree level, three semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A three-hour exam covering a one-semester introductory college course in statistics. The exam includes 90 minutes of multiple-choice questions (40 questions constituting 50 percent of the final grade) testing proficiency in a wide variety of topics, and 90 minutes of free-response questions (50 percent of the final grade) requiring the student to answer five open-ended questions and complete an investigative task involving more extended reasoning. The exam covers the following major topics: exploring data; planning a study (deciding what and how to measure); anticipating patterns (using probability and simulation); and

statistical inference. While it is not yet possible for students to have access to a computer during the AP Statistics Examination, standard computer output may be provided as necessary, and students will be expected to interpret it. Each student is expected to bring to the exam a graphing calculator with statistical capabilities and to be familiar with its use.

**Skills Measured:** The examination tests the examinee’s ability to explore data, plan a study (decide what and how to measure), anticipate patterns (use probability and simulation), and be familiar with statistical inference. The examination also tests the examinee’s ability to interpret a standard computer output and to use a graphing calculator with statistical capabilities.

### ***World History***

**Credit Recommendation:** At the lower division baccalaureate/associate level, 6 semester hours of credit are recommended for examinees with a grade of 3 or above.

**Description:** A 3-hour and 10-minute exam covering a full-year introductory college course in world history. Section I of the exam consists of 60 minutes of multiple questions. Section II consists of a 10-minute reading period, a 40-minute document-based question (DBQ), a 40-minute question dealing with continuity and change over time, and a 40-minute comparative question focusing on broad issues in world history. Each section accounts for half of a student’s grade.

**Skills Measured:** The examination measures change and continuity across world history periods; interaction between humans and the environment; development and interaction of cultures; state-building, expansion, and conflict; creation, expansion, and interaction of economic systems; and development and transformation of social structures. The chronological frame of the course is the period from approximately 8000 B.C.E. to the present.

**Summary of Credit Recommendations for the AP Examination Program**

Examination Title	Minimum Score for Awarding Credit	Number of Semester Hours
Art/History of Art	3	6
Art/Studio (Drawing or General Portfolio)	3	6
Biology	3	8
Calculus AB	3	3–4
Calculus BC	3	6–8
Chemistry	3	8
Chinese Language and Culture	3	6
Computer Science A	3	3–4
Computer Science AB	3	6–8
Economics/Macroeconomics	3	3
Economics/Microeconomics	3	3
English/Language and Composition	3	6
English/Literature and Composition	3	6
Environmental Science	3	4
French Language	3	6–8
French Literature	3	6–12
German Language	3	6–8
Government and Politics/Comparative	3	3
Government and Politics/U.S.	3	3
History/European	3	6
History/United States	3	6
Human Geography	3	3
Italian Language and Culture	3	6–8
Japanese Language and Culture	3	6
Latin/Literature	3	6–8
Latin/Vergil	3	6–8
Music Theory	3	6
Physics B	3	6–8
Physics C/Mechanics	3	4
Physics C/Electricity and Magnetism	3	4
Psychology	3	3
Spanish Language	3	6–8
Spanish Literature	3	6–12
Statistics	3	3
World History	3	6