



HUMAN GEOGRAPHY

Course Description

Effective Fall 2015

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Effective Fall 2015

The College Board
New York, NY

About the College Board

The College Board is a mission-driven not-for-profit organization that connects students to college success and opportunity. Founded in 1900, the College Board was created to expand access to higher education. Today, the membership association is made up of over 6,000 of the world's leading educational institutions and is dedicated to promoting excellence and equity in education. Each year, the College Board helps more than seven million students prepare for a successful transition to college through programs and services in college readiness and college success — including the SAT[®] and the Advanced Placement Program[®]. The organization also serves the education community through research and advocacy on behalf of students, educators, and schools.

For further information, visit www.collegeboard.org.

AP[®] Equity and Access Policy

The College Board strongly encourages educators to make equitable access a guiding principle for their AP[®] programs by giving all willing and academically prepared students the opportunity to participate in AP. We encourage the elimination of barriers that restrict access to AP for students from ethnic, racial, and socioeconomic groups that have been traditionally underrepresented. Schools should make every effort to ensure their AP classes reflect the diversity of their student population. The College Board also believes that all students should have access to academically challenging course work before they enroll in AP classes, which can prepare them for AP success. It is only through a commitment to equitable preparation and access that true equity and excellence can be achieved.

AP Course Descriptions

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Contents

6	About AP®
6	Offering AP Courses and Enrolling Students
6	How AP Courses and Exams Are Developed
6	How AP Exams Are Scored
7	Using and Interpreting AP Scores
7	Additional Resources
8	Introduction to AP Human Geography
8	Overview of This Guide
8	Course Prerequisites
8	Reading Level of Course Texts
9	Expectations for Writing in the Course
10	AP Human Geography Course Overview
10	Course Content and Its Presentation
10	Course Goals
12	Course Design: Depth over Breadth
13	AP Course Audit and Curricular and Resource Requirements
15	Course Curriculum
15	General Learning Outcomes
15	Skills and Practices
15	World Regions Maps
17	Curriculum Topics
17	I. Geography: Its Nature and Perspectives
17	II. Population and Migration
18	III. Cultural Patterns and Processes
18	IV. Political Organization of Space
19	V. Agriculture, Food Production, and Rural Land Use
19	VI. Industrialization and Economic Development
20	VII. Cities and Urban Land Use

22	AP Human Geography Curriculum Articulation
44	Course Instruction
44	Ways to Organize Instruction
45	Instructional Strategies
47	Reading for the Course
47	Characteristics of the Expected or Necessary Reading
48	Types of Texts Appropriate for the Course
48	Vocabulary
49	Helping Students with Difficult Reading
50	The Role of Technology in the Course
51	Writing in the Course
51	Expectations for Student Writing
52	Informal Writing
52	Research Papers
52	The Role of Argument
53	Multimodal Composition
53	Writing for Free-Response Items on the AP Human Geography Exam
55	Classroom Assessments
55	Formative and Summative Assessment
55	Feedback
57	Essential Resources
58	College Board Resources
59	The AP Human Geography Exam
60	Sample AP Human Geography Exam Items
60	Multiple-Choice Section
60	Sample Multiple-Choice Questions
66	Answers to Multiple-Choice Questions
67	Free-Response Section
67	Sample Free-Response Items
71	Summary of Scoring Rubrics

About AP®

AP enables students to pursue college-level studies while still in high school. Through more than 30 courses, each culminating in a rigorous exam, AP provides willing and academically prepared students with the opportunity to earn college credit and/or advanced placement. Taking AP courses also demonstrates to college admission officers that students have sought out the most rigorous course work available to them.

Each AP course is modeled upon a comparable college course, and college and university faculty play a vital role in ensuring that AP courses align with college-level standards. Talented and dedicated AP teachers help AP students in classrooms around the world develop and apply the content knowledge and skills they will need later in college.

Each AP course concludes with a college-level assessment developed and scored by college and university faculty and experienced AP teachers. AP Exams are an essential part of the AP experience, enabling students to demonstrate their mastery of college-level course work. Most four-year colleges and universities in the United States and universities in more than 60 countries recognize AP in the admission process and grant students credit, placement, or both on the basis of successful AP Exam scores. Visit www.collegeboard.org/apcreditpolicy to view AP credit and placement policies at more than 1,000 colleges and universities.

Performing well on an AP Exam means more than just the successful completion of a course; it is a gateway to success in college. Research consistently shows that students who receive a score of 3 or higher on AP Exams typically experience greater academic success in college and have higher graduation rates than their non-AP peers.¹ Additional AP studies are available at www.collegeboard.org/research.

1 See the following research studies for more details:

Linda Hargrove, Donn Godin, and Barbara Dodd, *College Outcomes Comparisons by AP and Non-AP High School Experiences* (New York: The College Board, 2008).

Chrys Dougherty, Lynn Mellor, and Shuling Jian, *The Relationship Between Advanced Placement and College Graduation* (Austin, Texas: National Center for Educational Accountability, 2006).

Offering AP Courses and Enrolling Students

This *AP Course Description* details the essential information required to understand the objectives and expectations of an AP course. The AP Program unequivocally supports the principle that each school implements its own curriculum that will enable students to develop the content knowledge and skills described here.

Schools wishing to offer AP courses must participate in the AP Course Audit, a process through which AP teachers' syllabi are reviewed by college faculty. The AP Course Audit was created at the request of College Board members who sought a means for the College Board to provide teachers and administrators with clear guidelines on curricular and resource requirements for AP courses and to help colleges and universities validate courses marked "AP" on students' transcripts. This process ensures that AP teachers' syllabi meet or exceed the curricular and resource expectations that college and secondary school faculty have established for college-level courses. For more information on the AP Course Audit, visit www.collegeboard.org/apcourseaudit.

How AP Courses and Exams Are Developed

Committees of college faculty and expert AP teachers design AP courses and exams to ensure that each AP subject reflects and assesses college-level expectations. AP Development Committees define the scope and expectations of the course, articulating what students should know and be able to do upon completion of the AP course.

The AP Development Committees are also responsible for drawing clear and well-articulated connections between the AP course and AP Exam. The AP Exam development process is a multiyear endeavor; all AP Exams undergo extensive review, revision, piloting, and analysis to ensure that the questions are fair, of high quality, and reflect an appropriate range of difficulty.

How AP Exams Are Scored

The exam scoring process, like the course and exam development process, relies on the expertise of both AP teachers and college faculty. While multiple-choice questions are scored by machine, the free-response questions are scored by thousands of college faculty and expert AP teachers at the annual AP Reading. AP Exam Readers are thoroughly trained, and their work is monitored throughout the Reading for fairness and consistency. In each subject, a highly respected college faculty member serves as Chief Reader, who, with the help of Readers in leadership positions, maintains the accuracy of the scoring standards. Scores on the free-response questions are weighted and combined with the results of the computer-scored multiple-choice questions, and this raw score is converted into a composite AP score of 5, 4, 3, 2, or 1.

The score-setting process is both precise and labor intensive, involving numerous psychometric analyses of the results of a specific AP Exam in a specific year and of the particular group of students who took that exam. Additionally, to ensure alignment with college-level standards, part of the score-setting process involves comparing the performance of AP students with the performance of students enrolled in comparable courses in colleges throughout the United States. In general, the AP composite score points are set so that the lowest raw score needed to earn an AP score of 5 is equivalent to the average score among college students earning grades of A in the college course. Similarly, AP Exam scores of 4 are equivalent to college grades of A-, B+, and B. AP Exam scores of 3 are equivalent to college grades of B-, C+, and C.

Using and Interpreting AP Scores

College faculty are involved in every aspect of AP, from course and exam development to scoring and standards alignment. These faculty members ensure that the courses and exams meet colleges' expectations for content taught in comparable college courses. Based upon outcomes research and program evaluation, the American Council on Education (ACE) and the Advanced Placement Program recommend that colleges grant credit and/or placement to students with AP Exam scores of 3 and higher. The AP score of 3 is equivalent to grades of B-, C+, and C in the equivalent college course. However, colleges and universities set their own AP credit, advanced standing, and course placement policies based on their unique needs and objectives.

AP Score	Recommendation
5	Extremely well qualified
4	Well qualified
3	Qualified
2	Possibly qualified
1	No recommendation

Additional Resources

Visit <http://apcentral.collegeboard.org> for more information about the AP Program.

Introduction to AP Human Geography

The AP Human Geography course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students learn to employ spatial concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications.

Overview of This Guide

This publication is intended to give school administrators and AP Human Geography teachers a detailed summary of the curricular requirements for the course, as well as a summary of the performance expectations for students in the course. It also provides guidance about strategies for effective instruction and formative assessment — both crucial elements in engaging high school learners in a college-level curriculum.

The publication contains a curriculum articulation (see page 22), which identifies the following:

- ▶ Essential knowledge that students should learn in the course
- ▶ Learning objectives that identify what students should know and be able to do by the end of the course
- ▶ Enduring understandings that specify core concepts that students should retain from their learning experiences

The curriculum articulation also identifies questions and prompts from released AP Human Geography Exams that align with specific learning objectives; this information helps define both the curriculum that teachers must cover in the course and the knowledge and skills that may be assessed on the AP Exam.

Additionally, this publication contains detailed information about the AP Human Geography Exam, including sample exam items and a summary of scoring rubrics.

Course Prerequisites

There are no prerequisites for AP Human Geography; however, students who have had experience with world geography, world history, or earth science may more easily address the objectives of this course. Experience with reading and interpreting data in various forms (e.g., graphs and maps) would also be beneficial. Students may have been effectively introduced to geographic terminology and concepts as early as at the elementary school level.

Reading Level of Course Texts

Students entering an AP Human Geography course should be capable of reading and comprehending texts written at the college level. Students should be able

to summarize and evaluate textual information. They should also be able to read and interpret maps and graphic data. The ability to perform basic mathematical operations is also useful in this course.

Expectations for Writing in the Course

Students entering an AP Human Geography course should possess fundamental skills in composition and inquiry (research). In both short-answer (i.e., one-paragraph) and multiparagraph essay formats, they should be able to clearly articulate their summaries, analyses, interpretations, and evaluations of information.

AP Human Geography Course Overview

Course Content and Its Presentation

AP Human Geography presents high school students with the curricular equivalent of an introductory college-level course in human geography or cultural geography. Content is presented thematically rather than regionally and is organized around the discipline's main subfields: economic geography, cultural geography, political geography, and urban geography. The approach is spatial and problem oriented. Case studies are drawn from all world regions, with an emphasis on understanding the world in which we live today. Historical information serves to enrich analysis of the impacts of phenomena such as globalization, colonialism, and human–environment relationships on places, regions, cultural landscapes, and patterns of interaction.

Specific topics with which students engage include the following:

- ▶ problems of economic development and cultural change
- ▶ consequences of population growth, changing fertility rates, and international migration
- ▶ impacts of technological innovation on transportation, communication, industrialization, and other aspects of human life
- ▶ struggles over political power and control of territory
- ▶ conflicts over the demands of ethnic minorities, the role of women in society, and the inequalities between developed and developing economies
- ▶ explanations of why location matters to agricultural land use, industrial development, and urban problems
- ▶ the role of climate change and environmental abuses in shaping the human landscapes on Earth

Course Goals

By the end of the course, students should be more geoliterate, more engaged in contemporary global issues, and more multicultural in their viewpoints. They should have developed skills in approaching problems geographically, using maps and geospatial technologies, thinking critically about texts and graphic images, interpreting cultural landscapes, and applying geographic concepts such as scale, region, diffusion, interdependence, and spatial interaction, among others. Students should see geography as a discipline relevant to the world in which they live; as a source of ideas for identifying, clarifying, and solving problems at various scales; and as a key component of building global citizenship and environmental stewardship.

The particular topics studied in an AP Human Geography course should align with the following college-level goals, which are based on the National Geography Standards developed in 1994 (and revised in 2012).² On successful completion of the course, students should have developed skills that enable them to do the following:

- ▶ ***Interpret maps and analyze geospatial data.*** Geography addresses the ways in which patterns on Earth's surface reflect and influence physical and human processes. As such, maps, geographic information systems (GIS), satellite imagery, remote sensing, and aerial photographs are fundamental to the discipline, and learning to use and think about these data sources is critical to geographic literacy. The goal is achieved when students learn to use maps and geospatial data to pose and solve problems, such as making predictions about the location of future urban growth for a particular city. Students should also learn to think critically about the patterns and information revealed or hidden in different types of maps and other forms of geospatial data.
- ▶ ***Understand the associations and networks among phenomena in particular places and explain their implications.*** The study of geography requires one to examine the world from a spatial perspective in order to understand the changing distribution of human activities on Earth's surface and the impact on natural resources. A spatial perspective allows one to focus on the ways phenomena are related to one another in particular places. For example, political instability in one part of the world may be connected to changing urban neighborhood demographics on another continent due to refugee and immigrant streams. Additionally, networks between producers and consumers are constantly changing in a globalized world. In this course, students learn to:
 - › recognize and interpret patterns and networks
 - › assess the nature and significance of the relationships among phenomena that occur in the same place
 - › analyze the ways cultural values, political policies, and economic forces work together to create particular landscapes (e.g., associations between exurban developments in the United States and the agriculturally productive Central Valley of California)
- ▶ ***Recognize and interpret the relationships among patterns and processes at different scales of analysis.*** Geographic analysis requires a sensitivity to scale, not just as a spatial category but as a framework for understanding how events and processes at different scales influence one another and change according to the scale of analysis. Students should therefore understand that the phenomena they are studying at one scale (e.g., local) may well be influenced by processes and developments at other scales (e.g., global, regional, national, state, provincial). For example, the closing of a manufacturing plant could be the result of global forces beyond the control of officials at the local level. Students should examine processes operating at multiple scales when seeking explanations of geographic patterns and arrangements.
- ▶ ***Define regions and evaluate the regionalization process.*** The study of geography requires one to not simply describe patterns but also analyze how these patterns

2 "National Geography Standards and Skills," National Geographic, accessed December 1, 2014, http://education.nationalgeographic.com/education/national-geography-standards/?ar_a=1.

came about and what they mean. Students should see regions (i.e., areas that share both human and physical characteristics) as objects of analysis and exploration; instead of simply locating and describing regions, they should consider how and why regions come into being and what they reveal about the changing character of the world in which we live. Examples of the regionalization process frequently come into focus when teaching about religion and language.

Course Design: Depth over Breadth

The study of geography requires interdisciplinary thinking and draws on a vast number of topics. This situation presents a dilemma for AP Human Geography teachers that often takes time and experience to solve: How can the necessary scope (breadth) of content that needs to be covered be balanced with the depth students need to understand a particular topic? If teachers can incorporate spatial thinking and analysis into their lessons, assignments, and presentations, then students will understand geographic data and apply geographic skills.

What is most critical is for students to think about issues from a geographic perspective. The following is a useful guide for teachers in assessing whether they are adhering to this perspective: If teachers are finding it difficult to refer to a map, chart, graph, or photograph to support the topic they are discussing, then they could be straying away from geography. This pitfall is common when covering ethnic conflicts, in which cultural patterns and processes are often at the root of conflicts. Many ethnic conflicts have long and complicated histories, so teachers must decide which conflicts to teach (e.g., the former Yugoslavia, Rwanda) and in how much depth to teach them. Teachers should continually ask themselves, "Where is the geography in this lesson?" By doing so, an AP Human Geography teacher can more easily maintain an appropriate focus for instruction, which in turn can help address topics with appropriate depth while avoiding overly broad coverage.

AP Course Audit and Curricular and Resource Requirements

Schools that intend to offer AP courses and label them as such on high school transcripts must provide evidence that the teachers of those courses (1) are aware of the curricular requirements as stipulated by the College Board and (2) have a plan to address those requirements. Schools provide such evidence by submitting to the AP Course Audit a syllabus or course description for each proposed AP course. Those syllabi are then reviewed by college professors who teach the equivalent introductory-level college courses. Courses for which sufficient evidence is provided are then authorized by the College Board and are added to a list of such authorized courses. The College Board makes that list available to colleges and universities so that they can verify AP courses that may be listed on student applicants' high school transcripts.

The curricular requirements for AP Human Geography are as follows:

- ▶ The teacher has read the most recent *AP Human Geography Course Description*.
- ▶ The course provides a systematic study of human geography, including the following topics outlined in the course description:
 - › Geography: Its Nature and Perspectives
 - › Population and Migration
 - › Cultural Patterns and Processes
 - › Political Organization of Space
 - › Agriculture, Food Production, and Rural Land Use
 - › Industrialization and Economic Development
 - › Cities and Urban Land Use
- ▶ The course teaches the use of spatial concepts and landscape analysis to examine human organization of space.
- ▶ The course teaches spatial relationships at different scales ranging from the local to the global.
- ▶ The course teaches students how to use and interpret maps, data sets, and geographic models. GIS, aerial photographs, and satellite images, though not required, can be used effectively in the course.

The resource requirements for the AP Human Geography course are as follows:

- ▶ The school ensures that each student has a college-level human geography textbook (supplemented when necessary to meet the curricular requirements) for individual use inside and outside the classroom.

- ▶ The school provides a collection of maps, atlases, and other resource materials (which could include data sources, case studies, mapping software, newspapers, and magazines) for use by students.
- ▶ The school ensures that teachers have copies of additional college-level geography textbooks and other appropriate college-level books for their consultation.

Course Curriculum

General Learning Outcomes

By engaging in a college-level human geography course, students should learn to do the following:

- ▶ Read sophisticated texts and academic writings
- ▶ Write well-constructed essays and research reports
- ▶ Think critically by synthesizing a variety of perspectives and information from various sources
- ▶ Discuss controversial issues with maturity and openness
- ▶ Analyze various forms of geospatial data
- ▶ Present field work and/or research using both visual and oral formats
- ▶ Work collaboratively with fellow students to analyze real-world issues

Skills and Practices

This course requires students to read and write at a college level, think critically, analyze various forms of spatial data, engage in map interpretation and analysis, solve problems using mathematical computation formulas, and possibly enhance their computer literacy using various programs such as database spreadsheets and geographic information system (GIS) mapping programs. Students should gain experience and expertise in conducting field studies, engaging in original research, analyzing academic writings, and writing academic reports. In addition, AP Human Geography teachers should provide instruction on the following set of geographic skills from National Geographic's "National Geography Standards and Skills":

- ▶ Asking geographic questions
- ▶ Acquiring geographic information
- ▶ Organizing geographic information
- ▶ Analyzing geographic information
- ▶ Answering geographic questions

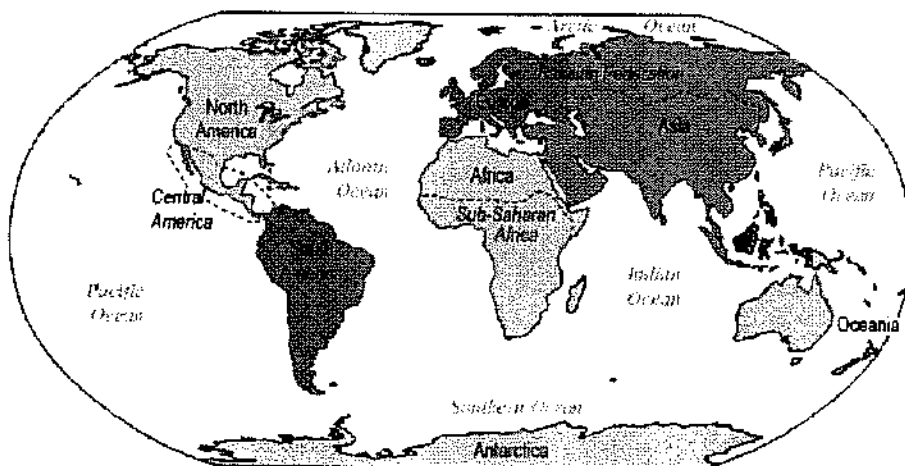
For a more in-depth treatment of discipline-specific skills that geographers use, teachers should consult the article by Dr. Sarah W. Bednarz, "Maps and Spatial-Thinking Skills in the AP Human Geography Classroom." (See Essential Resources, p. 57.)

World Regions Maps

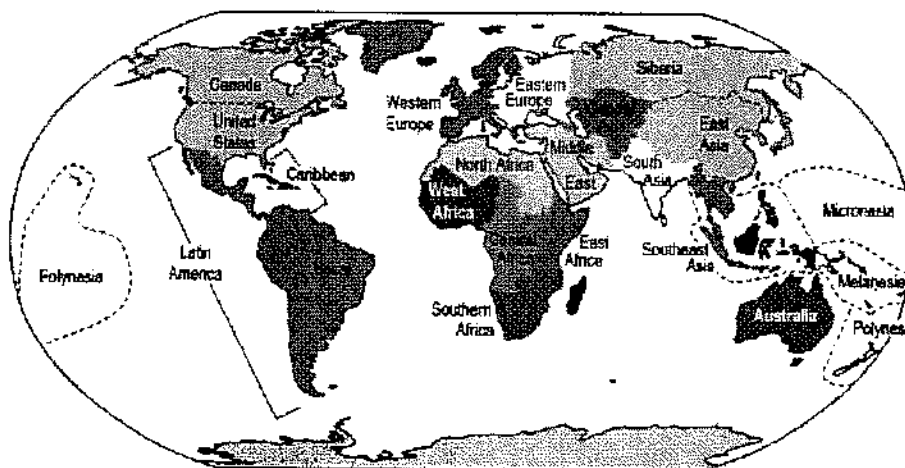
The following maps present a big-picture view of world regions and then a closer look. Many of the regions overlap or have transitional zones between them.

Although some regions are based on culture, others are defined by physiographic (i.e., physical geography) features. Not all geographers agree on how each region is defined. One geographer, for example, may place Armenia and Azerbaijan in the Middle East, whereas another may place them in Central Asia, as both countries were formerly parts of the Soviet Union. Likewise, some geographers use the term Middle East, whereas others use Southwest Asia to describe the same region.

AP Human Geography: World Regions — A Big Picture View



AP Human Geography: World Regions — A Closer Look



Curriculum Topics

The academic discipline of geography is divided into two main fields of study: human geography and physical geography. This course deals with the human element and is divided into seven broad topical units of study. There is no prescribed sequence for teaching these seven topical units. What is most important is that teachers be able to help students link units conceptually, as doing so will help students understand more thoroughly the interconnected nature of geography as a discipline.

I. Geography: Its Nature and Perspectives

AP Human Geography emphasizes the importance of geography as a field of inquiry and introduces students to the concept of spatial organization. Knowing the location of places, people, and events is a gateway to understanding complex environmental relationships and interconnections among places and across landscapes.

Geographic concepts emphasized throughout the course are location, space, place, scale of analysis, pattern, regionalization, and globalization. These concepts are basic to understanding spatial interaction and spatial behavior, the dynamics of human population growth and migration, patterns of culture, political control of territory, areas of agriculture production, the changing location of industry and economic development strategies, and evolving human settlement patterns, particularly urbanization. Students learn how to use and interpret maps and spatial data, apply mathematical formulas, and interpret models in order to better understand the world from a spatial perspective.

The course enables students to consider the regional organization of various phenomena and encourages geographic analysis in order to understand processes in a changing world. For example, geographic perspectives on the impact of human activities on the environment, from local to global scales, include effects on land, water, atmosphere, population, biodiversity, and climate. These human ecological examples are inherent throughout the course, especially in topics dealing with population growth, agricultural and industrial practices, and rapid urbanization. A significant outcome of the course is developing students' awareness of geographic methods and the relevance of geospatial technologies to a variety of situations (e.g., everyday life, planning and public policy, professional decision making, problem solving at scales from local to global).

II. Population and Migration

Understanding the ways in which human population is organized geographically helps students make sense of cultural patterns, political organization of space, food production issues, economic development concerns, natural resource use and decisions, and urban systems. Therefore, many of the concepts and theories encountered in this part of the course connect with other course units. Additionally, course themes of location, space, place, scale of analysis, and pattern can be emphasized when studying basic population issues such as crude birth rate, crude death rate, total fertility rate, infant mortality rate, doubling time, and natural increase.

Explanations of why the population is growing or declining in some places are based on patterns and trends in fertility, mortality, and migration. For example, when learning about the relevance of place context and government policies, students may analyze fertility rates and age-sex structures (shown in population pyramids) in various countries. Analyses of refugee flows, immigration, and internal migration help students understand the connections between population phenomena and other topics. For example, environmental degradation and natural hazards may prompt population redistribution at various scales, which in turn creates new pressures on the environment, culture, and political institutions.

This part of the course also enhances students' critical understanding of population trends across space and over time as they consider models of population growth and decline, including Malthusian theory, the demographic transition, and the epidemiological (mortality) transition model. Students can then evaluate the role, strengths, and weaknesses of major population policies, which attempt to either promote or restrict population growth.

III. Cultural Patterns and Processes

Understanding the components and regional variations of cultural patterns and processes is critical to human geography. Students begin with the concepts of culture and cultural traits and learn how geographers assess the spatial and place dimensions of cultural groups as defined by language, religion, ethnicity, and gender, in the present as well as the past.

The course explores cultural interaction at various scales, along with the adaptations, changes, and conflicts that may result. The geographies of language, religion, ethnicity, and gender are studied to identify and analyze patterns and processes of cultural differences. Students learn to distinguish between languages and dialects, ethnic religions and universalizing religions, and folk and popular cultures, as well as between ethnic political movements. These distinctions help students understand the forces that affect the geographic patterns of each cultural characteristic.

Another important emphasis of the course is the way culture shapes relationships between humans and the environment. Students learn how culture is expressed in landscapes and how land use, in turn, represents cultural identity. Built environments enable the geographer to interpret cultural values, tastes, symbolism, and beliefs. For instance, when analyzing Amish communities in the Western Hemisphere, it is important to understand how their unique values and practices (e.g., lack of power lines to buildings and the use of preindustrial forms of transportation) influence the cultural landscape.

IV. Political Organization of Space

Students learn about the nature and significance of the political organization of territory at different scales. Political patterns reflect ideas of territoriality — how Earth's surface should be organized — which in turn affect a wide range of exercises of power over space and boundaries. Two major themes are the political geography of the modern state and relationships between countries. Students are introduced to the different forces that shaped the evolution of the contemporary

world map. These forces include the rise of nation-states, especially in Europe; the influence of colonialism and imperialism; the rise of supranational organizations; and the devolution of states.

Students learn about the basic structure of the political map, including the inconsistencies between maps of political boundaries and maps of ethnic, cultural, economic, and environmental patterns. Additionally, students analyze forces that are changing the roles of individual countries in the modern world, such as ethnic separatism, terrorism, economic globalization, and social and environmental problems that cross international boundaries (e.g., climate change and acid rain). This part of the course also focuses on subnational and supranational political units. For example, at the scale above the state level, attention is directed to regional alliances, such as the North Atlantic Treaty Organization (NATO), the European Union, the Association of Southeast Asian Nations (ASEAN), and the North American Free Trade Agreement (NAFTA). At the scale below the state level, students learn about the ways in which electoral districts, municipalities, indigenous areas, provinces, and autonomous lands affect political, social, and economic processes.

V. Agriculture, Food Production, and Rural Land Use

Students examine geographic hearths where domestication of plants and animals first occurred and study the processes by which domesticated crops and animals spread. This diffusion process helps explain why distinct regional patterns emerge in terms of diet, energy use, and the adaptation of biotechnology.

This part of the course also examines the major agricultural production regions of the world, which are categorized as commercial or subsistence operations and are characterized as extensive (e.g., shifting cultivation) or intensive (e.g., mixed crop/livestock). Agricultural production regions are examined, as are settlement patterns and landscapes typical of each major agriculture type. Students learn about land survey systems, environmental conditions, sustainability, global food supply issues, and the cultural values that shape agricultural patterns. In addition, this unit addresses the roles of women in agriculture production, particularly in subsistence farming and market economies in the developing world.

Students learn theories and models about patterns of rural land use and associated settlements (e.g., von Thunen's land use model). They also study the impacts of large-scale agribusiness on food production and consumption. The effects of economic and cultural globalization on agriculture and the need to increase food supplies and production capacity are also addressed.

VI. Industrialization and Economic Development

Students learn about the geographic elements of industrialization and economic development, including past and present patterns of industrialization, types of economic sectors, and the acquisition of comparative advantage and complementarity. Students also learn how models of economic development (e.g., Rostow's stages of economic growth and Wallerstein's world-systems theory) help to explain why the world is divided into a more developed economic core and a less developed periphery with (in some cases) a semiperiphery between them.

The analysis of contemporary patterns of industrialization and their impact on development is another important focus. Students use measures of development (e.g., gross domestic product per capita and the Human Development Index [HDI]) as tools to understand patterns of economic differences. Additional topics to be studied include Weber's industrial location theory and accounts of economic globalization, which accent time-space compression and the new international division of labor. For example, students analyze the reasons why some Asian economies achieved rapid rates of growth in the mid- to late 20th century, whereas the economies of most countries south of the Sahara did not.

Students also examine the ways in which countries, regions, and communities must confront new patterns of economic inequality that are linked to geographies of interdependence in the world economy. Relevant topics include the global financial crisis, the shift in manufacturing to newly industrialized countries (NICs), imbalances in consumption patterns, the roles of women in the labor force, energy use, the conservation of resources, and the impact of pollution on the environment and quality of life.

VII. Cities and Urban Land Use

The course divides urban geography into two subfields. The first is the study of systems of cities, focusing on the location of cities and why cities are where they are. This study involves an examination of such topics as the current and historical distribution of cities; the political, economic, and cultural functions of cities; reasons for differential growth among cities; and types of transportation and communication linkages among cities. Theories of settlement geography, such as Christaller's central place theory, the rank-size rule, and the gravity model, are introduced. Quantitative information on such topics as population growth, migration, zones of influence, and employment is used to analyze changes in the urban hierarchy.

The second subfield of urban geography focuses on the form, internal structure, and landscapes of cities and emphasizes what cities are like as places to live and work. Students are introduced to topics such as the analysis of patterns of urban land use, ethnic segregation, types of intracity transportation, architectural traditions (e.g., neoclassical, modern, and postmodern), cycles of uneven development, and environmental justice (e.g., the disproportionate location of polluting industries and brown fields in low-income or minority residential areas). Students' understanding of cities as places is enhanced by both quantitative data from censuses and qualitative information from narrative accounts and field studies. Students also learn about and apply models of internal city structure and development in the United States and Canada (e.g., Burgess concentric zone model, Hoyt sector model, Harris-Ullman multiple nuclei model, and galactic city model), examine the strengths and weaknesses of these models, and compare and contrast the models with the internal structure of cities outside North America.

Topics such as economic systems, housing finance, culture, architectural history, government policies, and innovations in transportation can be useful in the analysis of spatial patterns of urban landscapes. Although much of the literature in urban geography focuses on the cities of North America, comparative urbanization is an increasingly important topic. The study of cities worldwide illustrates how differing

economic systems and cultural values can lead to variations in the spatial structures of urban landscapes.

Students also examine current trends in urban development, such as the emergence of edge cities, new urbanism, transit-oriented development, smart growth, and the gentrification of neighborhoods. In addition, students evaluate sustainable urban-planning design initiatives and community actions, such as bikeways and walkable mixed-use commercial and residential developments, that reduce energy use and protect the environments of cities in the future.

AP Human Geography Curriculum Articulation

The curriculum articulation below is designed to provide a clear and detailed description of the course curriculum and course content. Based on the Understanding by Design model (Wiggins and McTighe),³ the articulation provides the following:

- ▶ Enduring understandings, which describe core concepts that students should retain from their learning experiences
- ▶ Learning objectives, which describe what students are expected to be able to do by the end of the course
- ▶ Essential knowledge statements, which specify facts or content that students must know to be able to successfully demonstrate understanding of the learning objectives

The last column lists AP Human Geography Exam items that align with specific learning objectives or essential knowledge statements. In that column, FRQ refers to released (published) free-response questions, MC refers to released multiple-choice questions, and PE refers to the practice exam that is accessible via the AP Course Audit account for teachers of College Board–authorized AP Human Geography courses. PRB refers to Population Reference Bureau, which is a common resource for information used in the course.

I. Geography: Its Nature and Perspectives

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students will be able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
A. Geography, as a field of inquiry, looks at the world from a spatial perspective.	Explain the importance of geography as a field of study.	Geographic information provides context for understanding spatial relationships and human–environment interaction.	

³ Grant Wiggins and Jay McTighe, *Understanding by Design* (Alexandria, VA: Association for Supervision and Curriculum Development, 2005).

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students will be able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
B. Geography offers a set of concepts, skills, and tools that facilitate critical thinking and problem solving.	Explain major geographical concepts underlying the geographic perspective.	Geographical concepts include location, place, scale, space, pattern, nature and society, networks, flows, regionalization, and globalization.	
	Use landscape analysis to examine the human organization of space.	Landscape analysis (e.g., field observations, photographic interpretations) provides a context for understanding the location of people, places, regions, and events; human–environment relationships; and interconnections between and among places and regions.	2003 FRQ #2
C. Geographical skills provide a foundation for analyzing world patterns and processes.	Use spatial thinking to analyze the human organization of space.	People apply spatial concepts to interpret and understand population and migration; cultural patterns and processes; political organization of space; agriculture, food production, and rural land use; industrialization and economic development; and cities and urban land use.	
	Use and interpret maps.	Maps are used to represent and identify spatial patterns and processes at different scales.	2009 FRQ #1
		Types of maps include reference maps (e.g., physical and political maps) and thematic maps (e.g., choropleth, dot, graduated symbol, isoline, cartogram).	PE MC #41
		All map projections (e.g., Mercator, polar) inevitably distort spatial relationships (e.g., shape, area, distance, direction).	2006 MC #3
	Apply mathematical formulas and graphs to interpret geographic concepts.	Mathematical formulas and graphs are used to analyze rates of natural increase in population, population doubling time, rank-size rule for cities, and distance-decay functions.	

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students will be able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
C. Geographical skills provide a foundation for analyzing world patterns and processes. (continued)	Use and interpret geographic models.	Geographers use models as generalizations to think systematically about topics such as land use (e.g., vonThünen model, Latin American city model), industrial location (e.g., Weber model), and the distribution of settlements (e.g., Christaller's central place theory).	
	Use concepts such as space, place, and region to examine geographic issues.	Geographical issues include problems related to human–environmental interactions (e.g., sustainable agriculture); conflict and cooperation among countries (e.g., European Union); and planning and public-policy decision making (e.g., pronatalist policies).	
	Interpret patterns and processes at different scales.	Patterns and processes at different scales reveal variations in and different interpretations of data (e.g., age–sex pyramids, population density).	
	Define <i>region</i> as a concept, identify world regions, and understand regionalization processes.	Regions are defined on the basis of one or more unifying characteristics (e.g., corn belt) or on patterns of activity (e.g., hinterlands of ports). Types of regions include formal, functional, and perceptual. World regions are defined for this course by the maps in the course curriculum section of the <i>AP Human Geography Course Description</i> . World regions may overlap (e.g., Southeast Asia and Asia) and often have transitional boundaries (e.g., North Africa and Sub-Saharan Africa).	
	Explain and evaluate the regionalization process.	Regional thinking is applied at local, national, and global scales. <i>Regionalism</i> refers to a group's perceived identification with a particular region at any scale (e.g., Quebec).	2006 MC #30

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students will be able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
C. Geographical skills provide a foundation for analyzing world patterns and processes. <i>(continued)</i>	Analyze changing interconnections among places.	Interconnections among places include exchanges of natural resources, agricultural commodities, finished products, services, people, information, money, and pollutants.	PE MC #14, #19
D. Geospatial technologies increase the capability for gathering and analyzing geographic information with applications to everyday life.	Use and interpret geospatial data.	Geospatial technologies include geographic information systems (GIS), satellite navigation systems (e.g., global positioning system), remote sensing, and online mapping and visualization. Geospatial data (e.g., census data, satellite imagery) is used at all scales for personal (e.g., navigation), business (e.g., marketing), and governmental (e.g., environmental planning) purposes.	PE MC #3 PE MC #4
E. Field experiences continue to be important means of gathering geographic information and data.	Use quantitative and qualitative geographic data.	Data may be gathered in the field by organizations (e.g., census data) or by individuals (e.g., interviews, surveys, photography, informal observations). Quantitative and qualitative geographic data are used in economic, environmental, political, and social decision making.	PE MC #68 PE MC #59

II. Population and Migration

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
A. Knowledge of the geographic patterns and characteristics of human populations facilitates understanding of cultural, political, economic, and urban systems.	Analyze the distribution of human populations at different scales.	Factors that explain patterns of population distribution vary according to the scale of analysis (i.e., local to global).	2006 MC #9 PRB
		Physical factors (e.g., climate, land forms, water bodies) and human factors (e.g., cultural, economic, historical, political) influence the distribution of population.	2006 MC #18, #28
	Use population density to explain the relationship between people and the environment.	The three methods for calculating population density are arithmetic, physiological, and agricultural.	PE MC #37
	Explain the implications of population distributions and densities.	Population distribution and density influence political, economic, and social processes (e.g., redistricting, provision of services such as medical care).	
		Population distribution and density impact the environment and natural resources (e.g., carrying capacity).	2006 MC #44, #74
		Population distribution and density affect the need for infrastructure (e.g., housing) and urban services (e.g., sanitation).	
	Analyze population composition.	Age, sex, and ethnicity are elements of population composition that may be mapped and graphed at various scales.	PE MC #7 PRB
		Population pyramids are used to project population growth and decline and to predict markets for goods and services.	2003 FRQ #3 2004 FRQ #3 2006 MC #17, #32 2010 FRQ #3 PE MC #8

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
B. Populations grow and decline over time and space.	Explain contemporary and historical trends in population growth and decline.	Demographic factors that determine population growth and decline are fertility, mortality, and migration.	PRB
		Rates of natural increase and population-doubling times are used to explain population growth and decline.	PE MC #29 PRB
		Social, cultural, political, and economic factors influence fertility, mortality, and migration rates.	
	Interpret and apply theories of population growth and decline.	The demographic transition model may be used to explain population change over time and space.	2006 MC #49 2010 FRQ #3 PE MC #50
		Malthusian theory is used to analyze population change and its consequences.	2011 FRQ #2
		The epidemiologic transition explains causes of changing death rates.	
	Evaluate various national and international population policies.	Types of population policies include those that promote or restrict population growth (e.g., pronatalist, antinatalist).	
	Analyze reasons for changes in fertility rates in different parts of the world.	Changing social values and access to education, employment, health care, and contraception have reduced fertility rates in most parts of the world.	PE MC #22
		Changing social, economic, and political roles for women have influenced the patterns of fertility, mortality, and migration.	2008 FRQ #3
	Explain the causes and implications of an aging population.	Population aging is influenced by birth and death rates and life expectancy.	2013 FRQ #2
		An aging population has social (e.g., retirement), economic (e.g., dependency ratio), and political (e.g., voting patterns) implications.	2013 FRQ #2 PE MC #62

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
C. Causes and consequences of migration are influenced by cultural, demographic, economic, environmental, and political factors.	Explain how push and pull factors contribute to migration.	Push and pull factors can be cultural (e.g., religious freedom), demographic (e.g., unbalanced sex ratios, overpopulation), economic (e.g., jobs), environmental (e.g., natural disasters), or political (e.g., persecution).	2003 FRQ #3 2005 FRQ #2 PE MC #10
		Push factors are often negative (e.g., poor economic conditions, warfare), while pull factors are often perceived as positive (e.g., a better quality of life, economic opportunities).	2005 FRQ #2 2012 FRQ #3 PE MC #74
	Apply the concepts of forced and voluntary migration to historical and contemporary examples.	Forced migrations include those involving refugees, internally displaced persons, and asylum seekers.	2006 MC #8, #10
		Voluntary migrations may be transnational, internal, chain, step, and rural to urban.	2006 FRQ #1 2008 FRQ #2 PE MC #45
		Patterns of voluntary and forced migration may be affected by distance and physical features.	2008 FRQ #2
	Analyze major historical migrations.	Major historical migrations include forced migration of Africans to the Americas, immigration waves to the U.S., and emigration from Europe and Asia to colonies abroad.	2005 FRQ #2 PE MC #75
	Analyze the cultural, economic, environmental, and political consequences of migration.	Governments institute policies to encourage or restrict migration.	
		Migration has consequences (e.g., remittances; spread of languages, religions, innovations, diseases) for areas that generate or receive migrants.	2006 MC #48 2012 FRQ #3

III. Cultural Patterns and Processes

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
A. Concepts of culture frame the shared behaviors of a society.	Explain the concept of culture and identify cultural traits.	Culture is comprised of the shared practices, technologies, attitudes, and behaviors transmitted by a society. Cultural traits are individual elements of culture and include such things as food preferences, architecture, and land use.	PE MC #47
	Explain how geographers assess the spatial and place dimensions of cultural groups in the past and present.	Geographers use maps and the spatial perspective to analyze and assess language, religion, ethnicity, and gender.	2009 FRQ #1
	Explain how globalization is influencing cultural interactions and change.	Communication technologies (e.g., the Internet) are reshaping and accelerating interactions among people and places and changing cultural practices (e.g., use of English, loss of indigenous languages).	2007 FRQ #2
B. Culture varies by place and region.	Explain cultural patterns and landscapes as they vary by place and region.	Regional patterns of language, religion, and ethnicity contribute to a sense of place, enhance place making, and shape the global cultural landscape.	2002 FRQ #2 2006 MC #71 PE MC #15
		Language patterns and distributions can be represented on maps, charts, and language trees.	PE MC #2, #43, #65
		Religious patterns and distributions can be represented on maps and charts.	2009 FRQ #1 PE MC #28, #58
		Ethnicity and gender reflect cultural attitudes that shape the use of space (e.g., women in the workforce, ethnic neighborhoods).	2002 FRQ #3
		Language, religion, ethnicity, and gender are essential to understanding landscapes symbolic of cultural identity (e.g., signs, architecture, sacred sites).	2002 FRQ #2

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
B. Culture varies by place and region. <i>(continued)</i>	Explain the diffusion of culture and cultural traits through time and space.	Types of diffusion include expansion (contagious, hierarchical, stimulus) and relocation.	
		Language families, languages, dialects, world religions, ethnic cultures, and gender roles diffuse from cultural hearths, resulting in interactions between local and global forces that lead to new forms of cultural expression (e.g., lingua franca).	2006 MC #11, #68 2007 FRQ #2
		Colonialism, imperialism, and trade helped to shape patterns and practices of culture (e.g., language, religion).	
		Acculturation, assimilation, and multiculturalism are shaped by the diffusion of culture.	
	Compare and contrast ethnic and universalizing religions and their geographic patterns.	Ethnic religions (e.g., Hinduism, Judaism) are generally found near the hearth or spread through relocation diffusion.	2006 MC #36, #59
		Universalizing religions (e.g., Christianity, Islam, Buddhism) are spread through expansion and relocation diffusion.	2006 MC #36, #38
	Explain how culture is expressed in landscapes and how land and resource use represents cultural identity.	Cultural landscapes are amalgamations of physical features, agricultural and industrial practices, religious and linguistic characteristics, and other expressions of culture (e.g., architecture).	2002 FRQ #2 2006 MC #31
	Compare and contrast popular and folk culture and the geographic patterns associated with each.	Folk culture origins are usually anonymous and rooted in tradition and are often found in rural or isolated indigenous communities.	2006 MC #5, #19
		Popular culture origins are often urban, changeable, and influenced by media.	PE MC #34

IV. Political Organization of Space

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
A. The contemporary political map has been shaped by events of the past.	Explain the structure of the contemporary political map.	Independent states are the primary building blocks of the world political map. Types of political entities include nations, states, nation-states, stateless nations, multinational states, multistate nations, and autonomous regions.	2006 MC #12
	Explain the evolution of the contemporary political map.	The concept of the modern nation-state began in Europe. Colonialism and imperialism led to the spread of nationalism and influenced contemporary political boundaries.	2002 FRQ #1 PE MC #12
	Evaluate the geopolitical forces that influence the contemporary political map.	Independence movements and democratization have shaped the political map since the end of World War II. The fall of Communism ended the Cold War, led to the creation of newly independent states, and changed the world balance of power.	
B. Spatial political patterns reflect ideas of territoriality and power at a variety of scales.	Explain the concepts of political power and territoriality.	Political power is expressed geographically as control over people, land, and resources (e.g., heartland, rimland, and organic theories). Territoriality is the connection of people, their culture, and their economic systems to the land.	

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
B. Spatial political patterns reflect ideas of territoriality and political power at a variety of scales. (continued)	Evaluate the nature and function of international and internal boundaries.	Boundaries are defined, delimited, demarcated, and administered.	2012 FRQ #1
		International boundaries establish the limits of sovereignty and can be the source of disputes.	PE MC #73
		Boundaries can influence identity and promote or prevent international or internal interactions and exchanges.	PE MC #67
		The Law of the Sea has enabled states to extend their boundaries offshore, which sometimes results in conflicts.	2006 MC #64
		Voting districts, redistricting, and gerrymandering influence the results of elections at various scales.	2006 MC #22
	Analyze the spatial relationships between political systems and patterns of culture and economy.	Political boundaries do not always coincide with patterns of language, religion, ethnicity, nationality, and economy.	2014 FRQ #2 PE MC #45
	Compare and contrast forms of governance.	Forms of governance include unitary states (centralized government) and federal states.	
		Powers of the subdivisions of states vary according to the form of governance (e.g., the United States and Switzerland as federal states, France as a unitary state).	PE MC #36
		State morphology (e.g., compact, elongated, perforated, fragmented, prorupted states) has economic, political, and social implications.	2006 MC #20 PE MC #31
	Describe patterns of local and metropolitan governance.	Local and metropolitan forms of governance (e.g., municipalities, school districts, regional planning commissions) are subnational political units that have varying degrees of local control.	

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
C. The forces of globalization challenge contemporary political-territorial arrangements.	Explain how the political, economic, cultural, and technological elements of globalization challenge state sovereignty.	Some forces that may lead to supranationalism include economies of scale, trade agreements, military alliances, and transnational environmental challenges.	2005 FRQ #1 2006 MC #21, #29, #75
		Supranationalism is expressed in the creation of multinational organizations (e.g., UN, NATO, EU, ASEAN, NAFTA).	PE MC #52
		Some forces that may lead to devolution of states include physical geography, ethnic separatism, terrorism, economic and social problems, and irredentism.	
		Devolution is expressed in the fragmentation of states into autonomous regions (e.g., Nunavut, Native American reservations), subnational political-territorial units (e.g., Spain, Belgium, Canada), or Balkanization (e.g., former Yugoslavia, the Caucasus).	
	Apply the concepts of centrifugal and centripetal forces at the national scale.	Advances in communication technology have facilitated devolution, supranationalism, and democratization.	2005 FRQ #1
		Centrifugal forces can originate in political dimensions (e.g., majority/minority relationships, armed conflicts), economic dimensions (e.g., uneven development), or cultural dimensions (e.g., stateless nations, ethnic movements).	2006 MC #56 2006 FRQ #3 2010 FRQ #2 PE MC #49, #61
		Centripetal forces can originate in political dimensions (e.g., national identity), economic dimensions (e.g., equitable infrastructure development), or cultural dimensions (e.g., linguistic, religious, and ethnic similarities).	PE MC #24

V. Agriculture, Food Production, and Rural Land Use

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
A. The development of agriculture led to widespread alteration of the natural environment.	Identify major centers of domestication of plants and animals and patterns of diffusion in the first (Neolithic) agricultural revolution.	Early hearths of domestication of plants and animals include Southwest Asia (e.g., the Fertile Crescent), Southeast Asia, and the Americas.	2006 MC #6 PE MC #17, #18
		Patterns of diffusion (e.g., Columbian Exchange) resulted in the globalization of various plants and animals.	
	Explain the connection between physical geography and agricultural practices.	Agricultural regions are influenced by the natural environment (e.g., climate, soils, landforms).	PE MC #46
		Populations alter the landscape (e.g., terraces, irrigation, deforestation, draining wetlands) to increase food production.	2006 MC #34
	Explain the advances and impacts of the second agricultural revolution.	New technology and increased food production led to better diet, longer life, and more people available for work in factories.	
Analyze the consequences of the Green Revolution on food supply and the environment.		The Green Revolution began with the development of high-yield seeds (e.g., rice, wheat, maize), resulting in the increased use of chemical and mechanized farming.	2001 FRQ #1 2006 MC #4
		Positive consequences of the Green Revolution include increased food production and a relative reduction in hunger at the global scale.	
		Negative consequences of the Green Revolution include environmental damage resulting from irrigation and chemical use (e.g., pesticides, herbicides, fertilizers) and the cost of technology and seeds.	

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
B. Major agricultural regions reflect physical geography and economic forces.	Identify agricultural production regions associated with major bioclimatic zones.	Plant and animal production is dependent on climatic conditions, including spatial variations in temperature and rainfall.	
		Some agricultural regions are associated with particular bioclimatic zones (e.g., Mediterranean, shifting agriculture, pastoral nomadism).	2006 MC #41, #66 2012 FRQ #2 PE MC #1, #27, #32, #33, #70
	Analyze the economic forces that influence agricultural practices.	Agricultural production regions are defined by the extent to which they reflect subsistence or commercial practices, or intensive or extensive use of land.	2006 MC #2 PE MC #40
		Intensive farming practices include market gardening, plantation agriculture, mixed crop/livestock systems, etc.	
		Extensive farming practices include shifting cultivation, nomadic herding, ranching, etc.	PE MC #53
	Explain the spatial organization of large-scale commercial agriculture and agribusiness.	Large-scale commercial agricultural operations are replacing small family farms.	2009 FRQ #3
		The transformation of agriculture into large-scale agribusiness has resulted in complex commodity chains linking production and consumption of agricultural products.	2006 MC #70
		Technological improvements have changed the economies of scale in the agricultural sector.	2006 MC #27
	Explain the interdependence among regions of food production and consumption.	Food is part of a global supply chain; products from less developed low-latitude regions (e.g., coffee, bananas) are often consumed globally.	2014 FRQ #3 PE MC #57
		Patterns of global food distribution are affected by political systems, infrastructure, and patterns of world trade.	

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
C. Settlement patterns and rural land use are reflected in the cultural landscape.	Identify rural settlement patterns.	Rural settlement patterns are classified as clustered, dispersed, or linear.	PE MC #51, #57, #63
	Compare and contrast the land use zones of von Thünen's model.	Von Thünen's model helps to explain rural land use by emphasizing the importance of transportation costs associated with distance from the market.	2008 FRQ #1
	Analyze the application of von Thünen's land use model to agricultural production in the real world.	Von Thünen's model helps explain the contemporary distribution of agricultural regions (e.g., dairy, horticulture, wheat). Regions of specialty farming (e.g., South Florida, California's Central Valley) do not always conform to von Thünen's concentric rings.	2007 FRQ #1 PE MC #64
	Evaluate the environmental consequences of agricultural practices.	Environmental systems are affected by land use/land cover change (e.g., irrigation, desertification, deforestation, wetland destruction, conservation efforts).	
D. Changes in food production and consumption present challenges and opportunities.	Explain issues related to the changing nature of contemporary agriculture.	Agricultural innovations (e.g., biotechnology, genetically modified organisms, organic farming, aquaculture) have resulted in ongoing debates over environmental, cultural, and health impacts.	
		Environmental issues related to agriculture include sustainability, soil degradation, reduction in biodiversity, overgrazing, river and aquifer depletion, animal wastes, and extensive fertilizer and pesticide use. Patterns of food production and consumption are influenced by food-choice issues (e.g., organic farming, value-added specialty crops, fair trade, local-food movements).	PE MC #16

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
D. Changes in food production and consumption present challenges and opportunities.	Explain issues related to the location of food-production facilities.	Factors affecting the location of food-processing facilities include markets, economies of scale, transportation, government policies, etc.	2004 FRO #2 2006 MC #33
(continued)	Explain the changing role of women in food production and consumption.	The role of women in food production has changed (e.g., food gathering, farming, managing agribusiness). The role of women has changed the types of food a family consumes and the way food is prepared.	

VI. Industrialization and Economic Development

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
A. The Industrial Revolution, as it diffused from its hearth, facilitated improvements in standards of living.	Explain the role of the Industrial Revolution in the growth and diffusion of industrialization.	Industrialization began in response to new technologies and was facilitated by the availability of natural resources (e.g., water power, coal, iron ore). The diffusion of industrialization led to growing populations and increased food supplies, which freed workers to seek industrial jobs in cities. Increased industrialization led to demands for raw materials and the search for new markets and was a factor in the rise of colonialism and imperialism.	
	Identify the different economic sectors.	The economy consists of primary, secondary, tertiary, quaternary, and quinary sectors.	2006 MC #15 PE MC #20, #66
	Use Weber's model to explain industrial location.	Alfred Weber's model of industrial location emphasized the owner's desire to minimize transportation and labor costs and maximize agglomeration economies.	2006 MC #23, #39, #40 2010 FRQ #1 2011 FRQ #3
B. Measures of development are used to understand patterns of social and economic differences at a variety of scales.	Explain social and economic measures of development.	Measures of social and economic development include Gross National Income (GNI) per capita, sectoral structure of an economy, income distribution, fertility rates, infant mortality rates, access to health care, and literacy rates.	2006 MC #7
		Measures of gender inequality include reproductive health, indices of empowerment, and labor-market participation.	2008 FRQ #3
		The Human Development Index (HDI) is a composite measure used to show spatial variation in levels of development.	

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
B. Measures of development are used to understand patterns of social and economic differences at a variety of scales.	Analyze spatial patterns of economic and social development.	Models like Rostow's Stages of Economic Growth and Wallerstein's World System Theory help explain spatial variations in development.	2001 FRQ #3 2006 MC #72 2014 FRQ #1 PE MC #11 PE MC #42
(continued)		The U.N. Millennium Development Goals help measure progress in development.	
		In contrast to the periphery and semiperiphery, the core countries achieved dominance through industrial production of goods.	
	Evaluate the role of women in economic development and gender equity in the workforce.	Although there are more women in the workforce, they do not have equity in wages or employment opportunities.	
		Microloans have provided opportunities for women to create small local businesses, which have improved standards of living.	
C. Development is a process that varies across space and time.	Analyze the causes and consequences of international trade and growing interdependence in the world economy.	Complementarity and comparative advantage establish the basis for trade.	PE MC #39
		International trade and trading blocs (e.g., EU and NAFTA) have become more important as a result of globalization.	2006 MC #14, #42 PE MC #69
		Geographies of interdependence in the world economy include global financial crises, the shift in manufacturing to newly industrialized countries, imbalances in consumption patterns, and the roles of women in the labor force.	PE MC #35

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
C. Development is a process that varies across space and time. <i>(continued)</i>	Explain how economic restructuring and deindustrialization are transforming the contemporary economic landscape.	Outsourcing and economic restructuring have led to a decline in jobs in manufacturing regions and to the relocation of a significant segment of the workforce to other areas.	2006 MC #69 PE MC #72
		In countries outside the core, the diffusion of industry has resulted in the emergence of the international division of labor and manufacturing zones (e.g., maquiladoras, special economic zones, free trade zones).	2004 FRQ #1 2006 MC #65 2007 FRQ #3 PE MC #5
		The contemporary economic landscape has been transformed by the emergence of service sectors, high technology industries, and growth poles (e.g., Silicon Valley and the Research Triangle in the U.S.).	2006 MC #46 2013 FRQ #1 PE MC #60
		Government initiatives at all scales may help promote economic development.	2006 FRQ #2
D. Sustainable development is a strategy to address resource depletion and environmental degradation.	Analyze sustainability issues related to industrialization and development.	Sustainable development addresses issues of natural resource depletion, mass consumption, the costs and effects of pollution, and the impact of climate change, as well as issues of human health, well-being, and social and economic equity.	PE MC #13
		Ecotourism is a strategy used by some countries to help protect the environment and generate jobs.	2006 MC #53

VII. Cities and Urban Land Use

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
A. The form, function, and size of urban settlements are constantly changing.	Explain the factors that initiate and drive urbanization and suburbanization.	Site and situation influence the origin, function, and growth of cities.	2006 MC #24
		Transportation and communication have facilitated urbanization (e.g., Borchert's epochs of urban growth) and suburbanization.	2013 FRQ #3 PE MC #51
		Improvements in agriculture and transportation, population growth, migration, economic development, and government policies influence urbanization.	2001 FRQ #2 PE MC #56
		World cities function at the top of the world's urban hierarchy and drive globalization.	2006 MC #13
		Megacities are rapidly increasing in countries of the periphery and semiperiphery.	
		Megacities and world cities experience economic, social, political, and environmental challenges.	2009 FRQ #2
B. Models help to understand the distribution and size of cities.	Apply models to explain the hierarchy and interaction patterns of urban settlements.	Models that are useful for explaining the distribution and size of cities include the rank-size rule, the law of the primate city, and Christaller's central place theory.	2003 FRQ #1 2006 MC #37, #43, #60 2011 FRQ #1 PE MC #23, #44
		The gravity model is useful in explaining interactions among networks of cities.	

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
C. Models of internal city structure and urban development provide a framework for urban analysis.	Explain the models of internal city structure and urban development.	Classic models that are useful for explaining the internal structures of cities and urban development are the Burgess concentric-zone model, the Hoyt sector model, and the Harris–Ullman multiple-nuclei model.	2006 MC #35 2006 MC #73
		The galactic city model is useful for explaining internal structures and urban development within metropolitan areas.	2002 FRQ #3 PE MC #9
		World-regional models (e.g., Latin America, Africa) are useful (with limitations) for explaining land use and urban development.	PE MC #30
D. Built landscapes and social space reflect the attitudes and values of a population.	Analyze residential land use in terms of low-, medium-, and high-density housing.	Residential buildings and patterns of land use reflect a city's culture, technological capabilities, and cycles of development.	PE MC #55
	Evaluate the infrastructure of cities.	Economic development and interconnection within a metropolitan area are dependent upon the location and quality of infrastructure (e.g., public transportation, airports, roads, communication systems, water and sewer systems).	PE MC #63
	Explain the planning and design issues and political organization of urban areas.	Sustainable design initiatives include walkable mixed-use commercial and residential areas and smart-growth policies (e.g., new urbanism, greenbelts, slow-growth cities).	PE MC #26
		Functional and geographic fragmentation of governments presents challenges in addressing urban issues.	
	Analyze the demographic composition and population characteristics of cities using quantitative and qualitative data.	Quantitative information about a city's population is provided by census and survey data. Qualitative data from field studies and narratives provide information about individual attitudes toward urban change.	2004 FRQ #3

Enduring Understandings (Students will understand that ...)	Learning Objectives (Students are able to ...)	Essential Knowledge (Students will know that ...)	Examples or Resources
E. Urban areas face economic, social, political, cultural, and environmental challenges.	Evaluate problems and solutions associated with growth and decline within urban areas.	Economic and social problems associated with the growth and decline of urban communities include housing and insurance discrimination, housing affordability, access to food stores and public services, disamenity zones, zones of abandonment, and gentrification.	2005 FRQ #3
	Evaluate problems associated with urban sustainability.	Land use and environmental problems associated with the growth and decline of urban communities include suburban sprawl, sanitation, air and water quality, remediation and redevelopment of brown fields, farmland protection, and energy use.	2006 MC #50, #58 PE MC #38, #48

Course Instruction

AP Human Geography may be taught as either a semester or yearlong course; most schools choose the yearlong model. The timeframe, of course, will influence the instructional approach (e.g., project oriented, student centered, direct instruction) and pacing used to teach the course.

Teachers should emphasize geography as a field of inquiry rather than concentrating on memorization of concepts and terms. Students should have opportunities to experience geography through real-world situations, including field studies, data collection and analysis, current events, and theme-based projects.

AP courses feature college-level curricula and may require extra time on the part of the teacher for research and preparation of instruction, student support, and reviewing student assignments. Instruction in an AP Human Geography course should address complex reading, thinking, and questioning skills. Students should be expected to apply the course content to real-world examples through extensive reading, researching, analyzing, and writing at the level of an introductory college course.

Students in AP Human Geography vary by grade, age, and ability (e.g., variations in academic strengths or weaknesses or differences due to English as a first versus second language), so instruction will also vary based on those differences. Students who have limited experience studying the histories and social sciences, particularly world or regional geography, may need more background information and support in understanding issues related to AP Human Geography themes such as world political relationships, migration, and urbanization.

Ways to Organize Instruction

The AP Human Geography course emphasizes the importance of geography as a field of inquiry. To facilitate better understanding of life on Earth, the course introduces students to the importance of spatial organization: the location of places, people, and events; environmental relationships; and connections between places and across landscapes. This course description provides an overview of the content to be taught in the course, but neither it nor any single textbook should dictate the sequence in which the curricular components are taught.

The AP Human Geography Curriculum Articulation provides curricular and instructional guidance through enduring understanding statements, learning objectives, and essential knowledge statements. Teachers may use this framework to construct challenging instructional units or modules that connect and reinforce the concepts of the AP Human Geography curriculum.

Instruction should focus on student understanding and application of the curricular concepts as outlined in the curriculum articulation, making connections within and across units. Topics within a unit, such as the topics of population growth or decline in the Population and Migration unit, are repeated or expanded upon in other units (e.g., Cultural Patterns and Processes, Cities and Urban Land Use, and

Industrialization and Economic Development). To repeat, the order of the units in the course description does not dictate the order in which they should be addressed or taught. For example, although the measures of development are addressed in the Industrialization and Economic Development unit, teachers may choose to begin with another unit and introduce those measures early in the instruction and make connections to them throughout the course. This scaffolding, or structured repetition of concepts, provides students multiple interactions with the curricular content to reinforce their understanding of it.

Good pacing should provide adequate time for instruction, projects, field studies, assessments, and review; it will vary based on whether the course is taught in a semester or a whole academic year, or on a traditional or block class schedule. Creating a syllabus and/or calendar to address the content outlined in the course description will help to allocate appropriate time to address all of the course content and still allow time for review prior to the AP Human Geography Exam.

Instructional Strategies

In deciding on an instructional approach, teachers should consider their own pedagogical strengths and the age and ability of the students. The course offers teachers the freedom and flexibility to tailor instruction to the needs of their students. The themes and key concepts of AP Human Geography are intended to provide the foundational knowledge for future college level work, and as such, instruction should be rigorous and challenging for students.

Broad geographic trends (e.g., population growth or decline) and global processes (e.g., globalization) are important to the study of AP Human Geography. Collecting, recording, and analyzing data helps students identify current and predict future geographic trends.

Students should apply critical thinking skills in assessing data from sources, such as the Population Reference Bureau or the U.S. Census. They can also use field studies as a means of gathering data.

Instruction should include opportunities for students to conduct research. Such research might focus on the ways food is produced, how a sense of place is created through local landmarks and businesses, or how census data provides a means for urban planning. Providing students opportunities to actively use geographic principles reinforces the connections among those principles and students' lives and communities. Students can work collaboratively to design and create projects that utilize geographic phenomena and the results of data collection, field studies, or models. For example, students could collect data from PRB's World Population Data Sheet (<http://www.prb.org/Publications/Datasheets/2014/2014-world-population-data-sheet/data-sheet.aspx>) to predict population growth or decline, or they could visit a local supermarket to identify imported foods and then map the extent of globalized food chains.

Utilizing complex geographic models helps students understand how geographers study and apply geographic data to evaluate and predict spatial relationships. Students should be able to understand and apply geographic models to real-world situations. For example, students might use a local or regional map to discover if the

geographic distribution of villages, towns, and cities of Christaller's central place theory applies to their region.

Finally, providing instruction on reading, writing, note taking, discussions, and presentation skills will facilitate student learning. Discussions in AP Human Geography can provide students with opportunities to view the course content in varied ways, clarify questions, and challenge assumptions. Discussion of controversial issues offers students an opportunity to read, collect, and organize information to support their arguments. These discussions can take the form of discussion groups, Socratic seminars, debates, shared inquiry, or group debriefing. The following table lists some common strategies for classroom discussion.

Strategy	Purpose	Description
Socratic Seminar	To raise clarifying questions that help students arrive at a new understanding; challenge assumptions; probe perspective and point of view; question facts, reasons, and evidence; or examine implications and outcomes.	Students ask questions of one another in a discussion focused on a topic, essential question, or selected text. The questions initiate a conversation that continues with a series of responses and additional questions.
Debate	To facilitate student collection and oral presentation of evidence supporting the affirmative and negative arguments of a proposition or issue.	Students present an informal or formal argument that defends a claim with reasons, while others defend different claims about the same topic or issue. The goal is to debate ideas without attacking the people who defend those ideas.
Jigsaw	To facilitate student summarization and presentation of information in a way that promotes understanding of an issue or text (or multiple texts) without having each student read the text in its entirety; by teaching others, students become experts.	Each student in a group reads a different text or different passage from a single text, taking on the role of "expert" on what was read. Students share the information from that reading with students from other groups who read the same text and then return to their original groups to share their new knowledge.
Fishbowl	To engage students in a formal discussion that allows them to experience the roles of both participant and active listener; students also have the responsibility of supporting their opinions and responses using specific evidence.	A small group of students forms an inner circle and models appropriate discussion techniques, while an outer circle of students listens, responds, and evaluates.

Strategy	Purpose	Description
Shared Inquiry	To lead students in a deep discussion of a text and encourage a diversity of ideas to emerge as students think deeply and share interpretations.	Students read a provocative text and are asked interpretive questions (for which there are no predetermined "right" answers). Students who offer different responses debate one another, supporting their positions with specific evidence from the text.
Discussion Group	To help students gain new understanding of or insight into a text or issue by listening to multiple perspectives.	Students engage in an interactive, small-group discussion, often with an assigned role (e.g., questioner, summarizer, facilitator, evidence keeper), to consider a topic, text, question, etc.
Debriefing	To affirm and deepen student understanding.	Students participate in a teacher-facilitated discussion that leads to consensus understanding or helps students identify key conclusions.

Reading for the Course

AP Human Geography students are expected to read and interpret college-level texts and various other published materials. These complex texts may be more difficult and lengthy than students are accustomed to reading. Students may have to learn new ways of reading and analyzing texts and must pay careful attention to new or content-specific vocabulary.

Characteristics of the Expected or Necessary Reading

The study of human geography requires an understanding of patterns, processes, and trends in geographic phenomena. Therefore, AP Human Geography students should be able to recognize and interpret data. They must make connections among geographic phenomena and be able to analyze the implications of the data for past, present, and future change. This process challenges students to reflect on and interact with texts.

AP Human Geography students will be expected to evaluate and challenge written materials (e.g., news articles, journals, editorials) by analyzing the content and its context, identifying biases, and questioning the source of the content in the reading. Doing so requires students to be active readers — thinking, questioning, and connecting the content in order to construct an in-depth understanding of the material.

Reading geography texts means reading more than just words. The spatial nature of human geography requires students to be versatile readers who connect graphic content with the text.

AP Human Geography students should be able to read and interpret maps, graphs, charts, and photographs, since many geographic concepts are presented spatially in such formats. These important elements of reading should not be ignored.

Types of Texts Appropriate for the Course

No single textbook covers the complete AP Human Geography curriculum as described in this course description. The rapid growth of the course has fostered the development of several textbooks, and each has its strengths and deficiencies. Teachers should carefully review textbooks before adoption. A comparison of a text with the *AP Human Geography Course Description* will identify curriculum topics not addressed by that text. Teachers can then address these topics through direct instruction, directed research, or other assigned readings. It is helpful if teachers obtain and consult multiple collegiate textbooks for the introductory human geography course; doing so allows them to better address curricular gaps in the textbook adopted for the AP Human Geography course.

A number of AP Human Geography test-prep books have been developed for the course. While these can serve as review for the AP Human Geography Exam, they should not be used in place of a full textbook for the course.

A list of college-level textbooks appropriate for AP Human Geography can be found on the AP Course Audit website at http://www.collegeboard.com/html/apcourseaudit/courses/human_geography_textbook_list.html. Additionally, reviews of major human geography texts can be found on the AP Human Geography online teacher community, under the Resources tab, at <https://apcommunity.collegeboard.org/group/aphumangeo/resource-library/>.

Vocabulary

Human geography is rich in content-specific vocabulary. Students who have developed an understanding of geographic terms are better able to comprehend texts and be successful on exams. Therefore, vocabulary instruction is an important strategy in improving reading comprehension. Many textbooks provide vocabulary lists or glossaries. See "Vocabulary Lists for AP Human Geography Units" for an extensive list of geographic terms.

Teaching the vocabulary through direct instruction or student assignments, prior to engaging with the new vocabulary in a text, provides students with the ability to better comprehend complex readings. Vocabulary resources to help students learn geography-specific terms might include flash cards, vocabulary images, or online vocabulary sites. The following are some techniques useful for teaching vocabulary:

- ▶ Using context clues to infer meaning
- ▶ Direct instruction within the lesson
- ▶ Paraphrasing and recording definitions

- ▶ Using nonlinguistic representations (e.g., images, symbols) to support memory
- ▶ Multiple exposures to the vocabulary and meaning

It is important to note that mere memorization of geographic terms and their definitions is not sufficient for students' successful engagement with this curriculum. Instead, teachers should help students make connections among the concepts represented by geographic vocabulary and apply the terms to real-life examples.

Helping Students with Difficult Reading

Students will find it easier to read, comprehend, and assimilate the more difficult texts in AP Human Geography if the teacher presents some techniques to help them. Help with pacing and critical reading instruction may be necessary to assist students with comprehension and retention of reading content. Strategies such as chunking, doing multiple readings, creating questions and summaries, taking notes, guided reading, creating graphic organizers, and using ESPN charts will help students better comprehend complex texts.

Just as a curricular pacing guide can help teachers structure the course, students can also benefit from a pacing guide to manage their reading and other assignments. Because this course requires students to engage with college-level texts, students may need more time and focus; accordingly, smaller daily reading assignments may be more beneficial than extended assignments. Frequent and brief reading assignments allow students more time to focus and reflect on individual reading passages and analyze the graphic content. More moderate pacing also allows time for students to read the text more than once.

Instructional techniques that ask the reader to critique the text by analyzing it for context and meaning in order to evaluate it for its usefulness can help students become more focused readers. Some techniques for this critical reading include the following:

- ▶ Preview the materials by looking at headings, pictures, maps, and graphs.
- ▶ Connect the topic with prior knowledge.
- ▶ Place the content into historical and/or cultural context.
- ▶ Outline and/or summarize the content.
- ▶ Reflect on the content to evaluate personal reactions and/or biases.
- ▶ Evaluate the text for credibility and point of view.
- ▶ Apply the content to new examples or situations.

Younger high school students may need guidance to master questioning strategies (i.e., questioning the text for accuracy or identifying bias), evaluate the information in texts, or apply concepts to new or different reading situations (i.e., applying a concept to a new set of data).

Younger students also may benefit from techniques such as breaking texts down into smaller segments (i.e., chunking), reading the text more than once, and responding to the text with questions and summaries. After reading a "chunk,"

students can summarize the content and describe what the author is doing (e.g., comparing or describing). Students can also create questions about the text or represent the information in some graphic way. Reading a passage more than once, along with these other methods of active reading, help to focus the reader and facilitate better comprehension and retention of the material.

Students can number the paragraphs of the reading material to facilitate more effective discussion later. They can identify specific parts of the text (e.g., vocabulary that is defined or repeated and figurative language). They might underline definitions, claims, or beliefs presented by the author. Although these techniques may not be appropriate for borrowed textbooks in which students are not allowed to write, they do help students read more successfully.

Note-taking is another strategy that students can use to facilitate comprehension of texts. Students learn in different ways, so teaching students to use a variety of note-taking methods will allow them to choose the method that works best for them. Methods include Cornell notes, outlining, summarizing paragraphs/sections, or creating interactive notes using text, symbols, or images to convey content. Students will need to practice their note-taking skills to determine the most effective method for them. Establishing expectations for note-taking can also be useful. A 10-page reading assignment, for example, should result in notes that take up one quarter of the page length of the original content, or two and a half pages of notes.

Many college-level textbooks used with AP Human Geography structure chapters with key questions that signal what students should understand after reading a section or chapter. Previewing these guiding questions with students, or creating questions that address the major geographic concepts of the reading, will cue students to the focus of the reading and help them to anticipate the subject matter and connect it with what they already know. Guided reading is a helpful strategy to aid reading comprehension. In addition to questions to be answered as students read, guided reading may also take the form of summary questions after extended passages or focus prompts for students to discuss or use to visually convey the content.

Graphic organizers can also be used to put content into categories. They might include Know, Want to Know, and Learned (KWL) charts or graphic webs to link concepts.

ESPN charts are helpful to categorize Economic, Social, Political, and Environmental aspects when studying regions or countries.

The Role of Technology in the Course

Technology gives us easy access to real-world examples and applications of the broad human geography concepts, models, and vocabulary in textbooks. For example, students can use their smart phones to take pictures of cultural landscapes and illustrative examples of geographic terms or to identify GPS locations.

Geographic tools such as remote sensing and geographic information systems (GIS) provide insight into the changing dynamics of the world. Remote sensing allows

the student geographer to see changes over time in the landscape of regions, while GIS allows for critical analysis of interactions among competing elements on a landscape. By using these tools and interpreting and writing about these investigations, students gain a better understanding of geographic issues. GIS websites such as ESRI's Education Community (<http://edcommunity.esri.com/>) are available for mapping and/or analyzing the spatial distribution of geographic phenomena.

Teachers can use online maps for activities that require students to read and interpret data, utilize spatial thinking to solve problems, and analyze geographic distributions of data. Google Earth provides dynamic access to our planet in ways that early geographers might never have imagined. Students can ponder the global impact of technology as they zoom in on foreign locations and see photos and street views that reflect cultural landscapes around the world.

The Internet also provides a wealth of current articles, essays, blogs, and reports that are valuable in the application of geographic principles to real-world situations. The Population Reference Bureau and U.S. Census Bureau are good sources of data for student collection and analysis; they also help students focus their Internet searches to appropriate and reviewed materials that support the AP Human Geography themes and topics. Websites such as Scoop.it and Pinterest can be helpful in archiving Web resources for easy retrieval and use.

Writing in the Course

Expectations for Student Writing

Students in AP Human Geography should practice many kinds of writing — not just the kind of writing required for the AP Human Geography Exam. They should write on a regular basis and have ample opportunities to develop the skills necessary to communicate clearly and effectively on a collegiate level. They should learn to interpret, evaluate, respond to, and write persuasively about a variety of written texts and graphic images. Assignments should include both short informal and longer formal writing activities, including research or response papers. Assessment of student writing should promote the course goal of a cumulative development of skills.

Research papers or formal essays should demonstrate students' ability to create a document using formal writing conventions, appropriate use of information from source materials, correctly cited sources, and an appropriate bibliographic format. Students should be able to compose a thesis statement that anchors the supporting paragraphs and conclusions of their writing. This kind of formal writing is not required on the timed AP Human Geography Exam due to the format of the questions and the time restraints; however, teachers should provide AP Human Geography students multiple opportunities to learn to communicate effectively through formal written activities.

Informal Writing

Informal writing can be introduced by a number of warm-up activities (e.g., AP Human Geography bell ringers from the National Council for Geographic Education) in which students respond to open-ended questions, review concepts, or speculate on possible outcomes for geographic questions. These short, informal writings can be shared with a partner, discussed in class, or handed in to provide the teacher with a formative assessment that can guide further instruction.

Short presentations, map analyses, and reviews of current news articles also provide opportunities for students to use informal writing to demonstrate comprehension of geographic concepts. Other activities such as Socratic seminars and discussion groups lend themselves to short informal writing that can inform both the student and the teacher on the level of understanding of a concept.

Reflection logs are another useful tool. Students write reflections on personal geographic experiences, classroom lessons, or readings, thereby reinforcing comprehension and retention.

Research Papers

Research is an important component of the AP Human Geography course. Although a formal research paper is not required for the course, many AP Human Geography research activities lend themselves to a formal written response. Students should be proficient in research techniques and writing skills that can be demonstrated in a formal final product like a research paper. Students in AP courses should be expected to write in a manner commensurate with a college freshman. They should be able to appropriately cite sources in an accepted format (e.g., MLA, APA, Chicago).

The formal writing process provides students with practice in reading, researching, synthesizing, and writing at a collegiate level. Research projects can take many forms, such as investigating the growing and processing of food, researching ethnic conflicts, comparing world religions, or analyzing differences in cultural traits. The research product may range from one to many pages, depending on the topic and the teacher's requirements.

The Role of Argument

Many topics in AP Human Geography lend themselves to the development of arguments, such as, "Are GMOs worth the risk of potential harm in order to feed the hungry of the world?" A good argument requires research and preparation to support one's position on a topic, rather than relying solely on personal opinions and simplistic claims. Students should be able to construct a line of reasoning, based on information from multiple sources, that justifies a claim and defends a logical argument to inform or persuade.

Students can hone their logical argument skills through preparing position papers stating their arguments for classroom debates. Debates provide a forum for students to assert and defend their arguments. A skillful debater must understand the line of reasoning of the opponent's position in order to construct counterarguments and anticipate and address rebuttals. In preparing position

papers ahead of a debate, students should state their position, summarize the opposing position, and present their evidence to refute the opposition and clarify their position on the topic. This type of writing can help students see both sides of an argument and adequately prepare for an in-class debate.

Multimodal Composition

Students today have a variety of opportunities for reading, writing, and engaging with digital media. News articles include embedded short video clips, photo galleries, maps, charts, and graphic portrayals of information. PowerPoint and Prezi have changed many of the standard teacher lectures into more visual formats for communicating ideas and concepts.

Multimodal compositions provide opportunities to utilize technology to enhance instruction and broaden and motivate students' writing. Multimodal texts use more than just written text to communicate. They can include audio and visual content, such as videos, photographs, or drawings, to supplement the text in some purposeful way. Teachers and students can create, view, analyze, and discuss multimodal compositions within the classroom. Multimodal projects can be another way to help students learn and effectively communicate their understanding of geographic concepts.

Writing for Free-Response Items on the AP Human Geography Exam

The free-response items on the AP Human Geography Exam require students to analyze and respond to three prompts with multiple parts in 75 minutes. Students are expected to address the prompts in a thorough manner, but due to the time constraints of the exam they are not penalized for grammatical errors. Students must write their answers in a narrative form, not in bulleted statements.

A successful exam response will demonstrate student knowledge and understanding of the geographic concept or concepts applicable to the prompt, with students providing examples and/or evidence that demonstrate proficiency with the topic. Students should use geographic terms and reference geographic themes or models when appropriate. If there is a stimulus (e.g., a map, diagram, or chart), students should thoroughly investigate the information provided before beginning to write an answer. Linking information in the stimulus to what was learned in the course may help in formulating an answer.

AP Human Geography students should be able to apply geographic concepts to places or situations other than those used in instruction. Exam prompts may require students to explain concepts that come from more than one unit of the course, such as population growth or decline in urban or rural areas. Students' answers should demonstrate an understanding of the concepts and how they relate to the answer.

When taking the AP Human Geography Exam, students should not begin writing until they fully comprehend the prompt. Identifying the action verbs in the prompt (e.g., define, explain, or analyze) should provide guidance on the type of answer required for each part of the prompt. Space is provided on the unlined paper under the prompt for students to plan their responses. Students who spend time planning are more likely to stay focused on the specific language of the prompts. It is not

necessary to rephrase the question in the answer or to include an introductory paragraph.

The format of the written response (answer) should reflect the format of the prompt (question). For example, lettered parts of the prompt might ask for definitions, explanations, or analysis, and the responses should reflect that order. Students are encouraged to label the parts of their response the way they were labeled in the prompt to ensure that they formulate a complete and organized response. When writing a response to a new topic or new part of the prompt, students should create a new paragraph. Paragraphs create the structure of the response. Providing appropriate illustrative examples makes a student's response stronger by demonstrating that the student understands the context of the prompt.

Teachers can help students develop skill in answering AP Human Geography Exam-style questions by utilizing released FRQs from previous exams, available at http://apcentral.collegeboard.com/apc/members/exam/exam_information/2004.html. These examples allow students to review the scoring rubrics used for previous exam questions; see examples of student essays earning high, middle, and low scores; and gain insight on writing a more complete exam response.

Classroom Assessments

In AP Human Geography it is critical that students demonstrate content mastery and acquisition of geographic skills and spatial reasoning through both formative and summative assessment. When assessing student work throughout the course, teachers should include feedback on how students have demonstrated the skills they have been practicing, how they might improve on those skills, and/or how they might move on to incorporate more skills and spatial thinking into their repertoires.

Formative and Summative Assessment

Teachers should provide students with multiple opportunities to master course objectives, such as interpreting maps, working with and understanding geospatial data, and explaining the implications of associations and networks among phenomena in places. Then, through formative assessments, teachers should provide feedback to students about their performance on a particular task, as well as guidance about similar tasks that students will perform in mastering course objectives. Teachers should also use formative assessments as instructional planning tools to help identify topics or skills on which students require additional instruction. In either case, the emphasis of formative assessments should be to provide teachers and students with information about student learning; grading or scoring should be de-emphasized.

Summative assessments, in contrast, usually provide a single, summary evaluation of student performance. A summative assessment might be a grade students receive on an in-class essay that is not expected to be revised or resubmitted.

It is particularly important that AP Human Geography teachers recognize that assessment contexts matter. An assessment that is appropriate and successful in one situation may be neither in another situation. The AP Human Geography Exam, for instance, is an extracurricular evaluation of student performance on several tasks. It is a single assessment context with a number of constraints that distinguish exam writing, and it provides a summary evaluation, or summative assessment, in the form of a numerical score that is separate from a student's classroom grading process.

Classroom assessments, in contrast, should be designed with a different purpose in mind: to help students improve their learning and skills. Teachers should use formative assessments as much as possible to provide students with feedback in the service of this goal; conversely, it is inappropriate for teachers to rely heavily on summative assessments that do not provide opportunities for student learning and growth in the classroom.

Feedback

Teachers equate feedback with written commentary on student papers. Busy teachers, however, should understand that feedback can occur in a broad range of contexts. Teachers should take advantage of opportunities to provide feedback in different formats and settings. In addition to written comments on drafts

and papers, students can get valuable feedback from taking part in peer-group discussion and student-teacher conferences. In any format or setting, feedback should focus on helping students identify and address gaps in their knowledge or skills. The goal of feedback should be improving student agency and ability.

Perhaps the most important thing a teacher should consider when providing responses to student work is that there is no one-size-fits-all approach. This is especially true in a course like AP Human Geography, since it is taught at all high school grade levels and in a variety of settings. Teachers often rely on grading rubrics, the most efficient and standardized of all response methods. Rubrics, however, fail to recognize the value in customizing the teacher's response to individual students and contexts. Although rubrics may address some concerns about the reliability of, and time needed for, scoring, they are a mechanical form of feedback and work against the personal and specific feedback and response long valued by educators.

Essential Resources

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Common Core State Standards Initiative. Accessed December 1, 2014. <http://www.corestandards.org/>.

"Defining Multimodal Composition." Digital Life Place Narratives: Integrating Multimodal Assignments into the Writ 101 Curriculum. Accessed December 1, 2014. <http://multimodalcomposition.wordpress.com/2011/02/06/defining-multimodal-composition>.

Heffron, Susan G. and Roger M. Downs, eds. *Geography for Life: National Geography Standards*. 2nd ed. Washington, DC: National Council for Geographic Education, 2012.

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Wiggins, Grant, and Jay McTighe. *Understanding by Design*. Alexandria, VA: Association for Supervision and Curriculum Development, 2005.

College Board Resources

AP Central. College Board. Accessed December 1, 2014.
www.apcentral.collegeboard.com.

This site features the following resources for teachers:

- ▶ archived exam questions with scoring guides, sample responses, and explanations
- ▶ schedules of professional development opportunities, including summer workshops and year-round training

AP Course Audit. College Board. Accessed December 1, 2014. <http://www.collegeboard.com/html/apcourseaudit/>.

This site features the following resources for teachers:

- ▶ A list of course curricular requirements
- ▶ Examples of textbooks and resources
- ▶ Sample course syllabi

The AP Human Geography online teacher community. College Board. Accessed December 1, 2014. <https://apcommunity.collegeboard.org/web/aphumangeo/home>.

This online community provides individualized responses to queries about the course. Participants may follow distinct threads of discussion, download effective lesson plans and instructional resources, read reviews of recommended resources, and pose their own questions for feedback from the national community at large.

AP and Pre-AP Summer Institutes. College Board. Accessed December 1, 2014.
<http://professionals.collegeboard.com/prof-dev/workshops/summer-institutes>.

This site provides information about the summer institutes. Participating in one of these summer institutes is perhaps the most effective preparation for teaching AP Human Geography.

The AP Human Geography Exam

Each year, the AP Human Geography Development Committee creates new examination forms to assess the degree to which high school students have met the requirements of a college-level course in human geography or cultural geography. These exams are years in the making and consist of questions that have been fully vetted by the committee and field-tested in college classrooms.

The exam is composed of two parts: a multiple-choice section with 75 items, and a free-response (essay) section with three items. Examinees are allotted 2 hours and 15 minutes to complete the exam. One hour is provided for the multiple-choice section, and 75 minutes are provided for the free-response section. Each section contributes equally to the final score a student receives. Questions on the exam range in difficulty from those asking students to recognize the meaning of terms and concepts to those requiring students to apply a model or concept to a new scenario. Many of the questions are based on a table, map, diagram, or photograph.

Multiple-choice scores are based on the number of questions answered correctly. Points are not deducted for incorrect answers, and no points are awarded for unanswered questions. Because points are not deducted for incorrect answers, students are encouraged to answer all multiple-choice questions. If students do not know the answer to a question, they should eliminate as many choices as they can and then select the best answer among the remaining choices.

In the free-response section of the AP Human Geography Exam, students respond to three free-response questions in 75 minutes. These prompts may require students to demonstrate an understanding of models, to analyze and evaluate geographic concepts, to cite and explain examples of various geographic processes, or to synthesize different topics covered in the course outline. Students should spend approximately one-third of their time, or 25 minutes, on each of the three prompts. Students are expected to use their analytical and organizational skills to formulate responses in narrative form. If a question is separated into parts (e.g., A, B, C), students should supply a separate narrative for each part. Bulleted lists are not acceptable as a response.

Students should read each question carefully and provide only the information needed to answer the question. For instance, if a question calls for two examples, only the first two examples presented in the answer will contribute to the student's score. Answers to the free-response questions are read by panels of AP teachers and college instructors who apply a scoring guide, approved by the development committee, to award points.

Sample AP Human Geography Exam Items

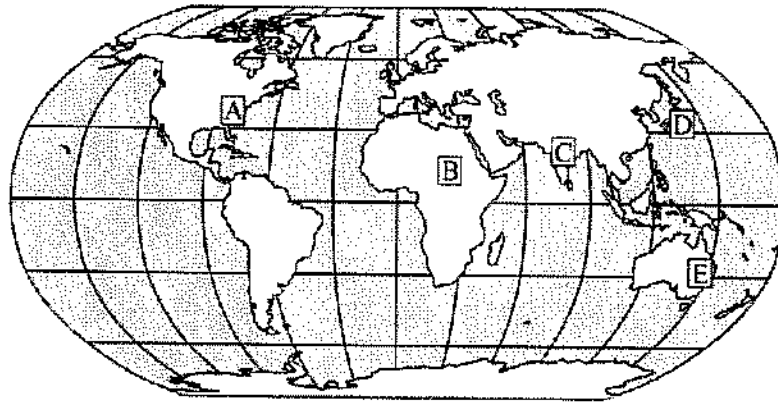
Multiple-Choice Section

The AP Human Geography Exam allows 1 hour for the multiple-choice section. The following are examples of the kinds of multiple-choice questions that appear on the exam. Answers to the following multiple-choice questions can be found on page 66.

Sample Multiple-Choice Questions

Directions: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the one that best answers the question or completes the statement.

1. Physiological population density is viewed as a superior measure of population density for which of the following reasons?
 - (A) It is more reflective of population pressure on arable land.
 - (B) It yields the average population density.
 - (C) It is more reflective of the world's largest population concentrations.
 - (D) It measures the average by dividing total land area by total number of people.
 - (E) It best reflects the percentage of a country's population that is urbanized.
2. Which of the following regions has little dairying in its traditional agriculture?
 - (A) Eastern Europe
 - (B) Western Europe
 - (C) South Asia
 - (D) East Asia
 - (E) North America



3. On the map above, which one of the following boxes is in an area where the population density is high and the level of economic development is low?
- (A) A
 - (B) B
 - (C) C
 - (D) D
 - (E) E
4. According to central place theory, the threshold is defined as the
- (A) economic base of a central place
 - (B) distance away from a central place
 - (C) gross value of the product minus the costs of production
 - (D) minimum number of people needed to support a service
 - (E) point at which consumer movement is at a minimum
5. Outsourced industrial production in less developed countries often relies on female labor because
- (A) men are engaged mainly in agriculture
 - (B) wage rates for women are much lower than for men
 - (C) women are more skilled at operating machinery than men are
 - (D) social taboos prevent women from working in the service sector
 - (E) women are not protected by international labor laws
6. The spread of specialty coffee shops across the United States in the 1990s is an example of
- (A) hierarchical diffusion
 - (B) contagious diffusion
 - (C) stimulus diffusion
 - (D) periodic movement
 - (E) relocation diffusion

7. Which of the following is a subsistence crop?
- (A) Corn
 - (B) Cotton
 - (C) Rubber
 - (D) Cocoa
 - (E) Timber
8. All of the following statements about the geography of meat production in the United States and Canada are true EXCEPT
- (A) Industrial farmers are raising ever-increasing numbers of animals on their farms.
 - (B) Animal slaughtering and meat-processing activities are dominated by a few large corporations.
 - (C) The development of the poultry industry has made chicken the least expensive kind of meat consumed in the United States and Canada.
 - (D) Fast-food restaurants have created a demand for increased standardization and homogeneity of animals raised for meat.
 - (E) Consumer demand for organic foods has significantly decreased the amount of meat produced by most agribusiness firms.
9. Compared with more developed countries, which of the following statements is true of less developed countries?
- (A) A higher percent of the labor force is engaged in food production.
 - (B) The population pyramids exhibit narrower bases.
 - (C) The per capita consumption of energy is higher.
 - (D) The natural increase of the population is lower.
 - (E) Fertility rates are lower.
10. Free-trade zones such as the countries of the North American Free Trade Agreement (NAFTA) are established to increase the ease and volume of international trade by
- (A) increasing diplomatic relations between member states
 - (B) opening borders to migrant guest workers from member states
 - (C) establishing a common monetary unit among member states
 - (D) offering large economic-development loans to poorer member states
 - (E) eliminating tariffs on goods that cross borders between member states
11. Which of the following best describes the process of gentrification in United States and Canadian cities?
- (A) An increase in construction of new housing for elderly and retired persons
 - (B) Privately funded redevelopment of existing commercial and residential buildings
 - (C) Government-led planning of public spaces such as parks and riverfronts
 - (D) The sale of naming rights for stadiums and arenas
 - (E) The expansion of suburban housing developments on the urban periphery

12. A formal region defines an area in which
- (A) a core dominates its surrounding hinterland
 - (B) a transportation network links different types of land use
 - (C) there is uniformity in one or more physical or human characteristics
 - (D) there are significant geographic variations in physical or human characteristics
 - (E) a unified government system has been established
13. Squatter settlements exist in cities of less developed countries because
- (A) city governments set aside vacant areas for new migrants
 - (B) people want to live near the center of the city, where jobs are located
 - (C) affordable housing is not available elsewhere for new migrants to the city
 - (D) new migrants prefer to live in squatter settlements with other recent migrants
 - (E) new migrants need to be isolated from other city residents until they adjust to urban life
14. What would be the most profitable location for an ethanol manufacturing plant that converts corn into alcohol for use as an additive for gasoline?
- (A) Near a large university to facilitate recruitment of highly trained chemists
 - (B) Near a break-of-bulk point for ease of transportation
 - (C) Near a navigable river to reduce transportation costs to distant markets
 - (D) Near a prime corn-producing area to minimize transportation costs of raw materials
 - (E) Near a large metropolitan area to serve a major market
15. It is generally agreed that the current trend in climate change is caused by
- (A) sea-level rise
 - (B) increased use of fossil fuels
 - (C) reduction in biodiversity
 - (D) tilt of Earth's axis
 - (E) changes in the velocity of ocean currents
16. Which of the following originated in South Asia and subsequently spread throughout much of Southeast and East Asia?
- (A) Hinduism
 - (B) Christianity
 - (C) Buddhism
 - (D) Sikhism
 - (E) Confucianism

17. According to the rank-size rule, if the largest city in a region has a population size of 900,000, then the third largest city will have a population of
- (A) 3,000
 - (B) 9,000
 - (C) 45,000
 - (D) 300,000
 - (E) 900,000
18. Since 1960 Brazil, Kazakhstan, Myanmar, Pakistan, and Tanzania have relocated their capital cities. Which of the following statements about the new locations is true for all five countries?
- (A) A militarily strategic location was chosen.
 - (B) An isolated location was chosen.
 - (C) An ethnically mixed location was chosen.
 - (D) A more central location was chosen.
 - (E) A coastal location was chosen.
19. Since the 1970s, changes in the social roles, lifestyles, and employment patterns of women in Europe, Canada, and the United States have affected the overall population through which of the following?
- (A) Increased total fertility rates
 - (B) Decreased total fertility rates
 - (C) Increased death rates
 - (D) Decreased death rates
 - (E) Increased infant mortality rates
20. Which of the following is the primary assumption of environmental determinism?
- (A) Human destiny is controlled by the cultural environment.
 - (B) The physical environment has little influence on humans.
 - (C) Humans have complete control over the physical environment.
 - (D) Many human adaptations are possible within a specific physical environment.
 - (E) The physical environment controls human culture.
21. Environmental laws, labor availability, and access to markets are major factors affecting which of the following?
- (A) Political affiliation
 - (B) Gross domestic product
 - (C) Property tax rates
 - (D) Manufacturing locations
 - (E) Transportation costs

22. Which of the following is an example of a supranational organization with the main mission of increasing economic integration?
- (A) The North Atlantic Treaty Organization
 - (B) The European Union
 - (C) The United Nations
 - (D) The International Red Cross and Red Crescent Movement
 - (E) The United States Federal Reserve
23. Which of the following can be an example of a centrifugal political force?
- (A) Homogeneous ethnic population
 - (B) Strong central government
 - (C) Variation of language within the country
 - (D) Shift to tertiary economy
 - (E) Concentrated ownership of media

Answers to Multiple-Choice Questions

1 - A	7 - A	13 - C	19 - B
2 - D	8 - E	14 - D	20 - E
3 - C	9 - A	15 - B	21 - D
4 - D	10 - E	16 - C	22 - B
5 - B	11 - B	17 - D	23 - C
6 - A	12 - C	18 - D	

Free-Response Section

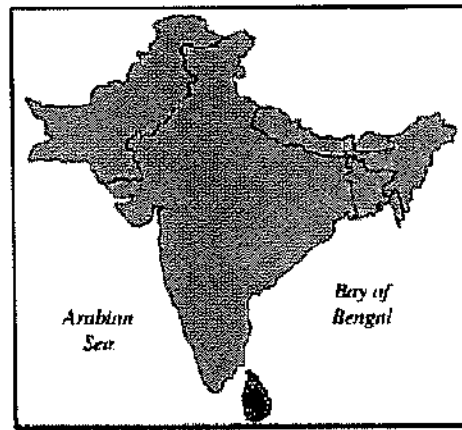
On the AP Human Geography Exam, students have 75 minutes to construct responses to three open-ended prompts. These prompts may require students to demonstrate an understanding of models, analyze and evaluate geographic concepts, cite and explain examples of various geographic processes, or synthesize different topics covered in the curriculum articulation. The following are sample free-response prompts. Each prompt represents a different part of the curriculum articulation.

Sample Free-Response Items

POPULATION AGE 65 OR OLDER IN 2000 AND 2050 (in percent)

Country	Population Age 65 or Older, 2000 (percent)	Population Age 65 or Older, 2050 (percent)	Change in Proportion 65 Years or Older (percent)
Belgium	17	28	65
Denmark	15	24	59
Japan	17	32	86
Russian Federation	13	25	100
Ukraine	14	27	91
United Kingdom	16	25	56

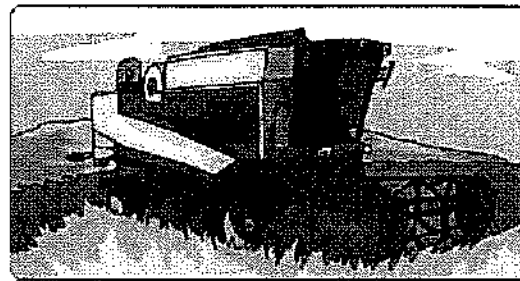
1. The average age of the population in selected developed countries, listed in the table above, has been increasing.
 - A. Identify and explain two reasons why the average population age is increasing in developed countries.
 - B. Identify and explain one social consequence and one economic consequence that countries face as their populations age.
2. At the same time that English is solidifying its role as the world's premier lingua franca, lesser-used minority languages (such as Welsh, Basque, and Inuktitut) are undergoing revival. Discuss three distinct factors promoting the revival of minority languages in the face of globalization.



3. The viability of any state depends on a balance between centripetal and centrifugal forces.
- A. Define the concepts of "centripetal force" and "centrifugal force."
 - B. Give a specific example of and explain a centripetal force that affects the viability of any of the states shown on the map above.
 - C. With reference to a different specific example, explain a centrifugal force that affects the viability of any of the states shown on the map above.

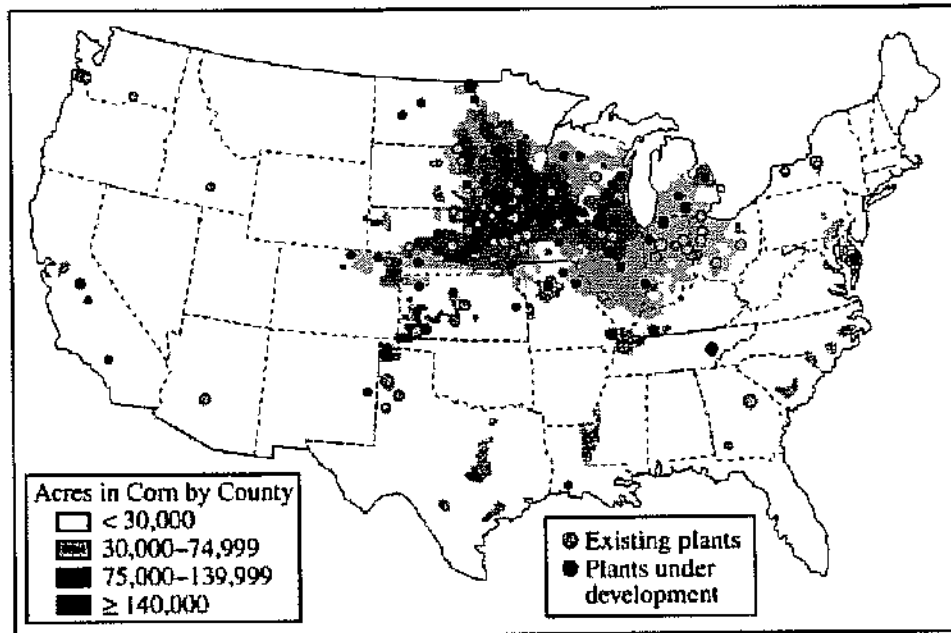


X



Y

4. The drawings above reflect agricultural activities in the hinterland of a large urban area.
- A. Apply the underlying principles of von Thünen's agricultural land-use model to predict the locations of the activities shown in X and Y relative to a large urban area.
 - B. Choose either activity X or activity Y and apply the underlying principles of von Thünen's agricultural land-use model to explain the location of the activity.
 - C. Discuss two factors that explain why agricultural land-use patterns today differ from those developed by von Thünen's model in 1826.

Ethanol Manufacturing Plants, 2007

5. According to Alfred Weber's theory of industrial location, three factors determine the location of a manufacturing plant: the location of raw materials, the location of the market, and transportation costs.
 - A. Using an example of a specific industry other than the one portrayed on the map above, explain under what conditions an industry would locate near the market.
 - B. Using an example of a specific industry other than the one portrayed on the map above, explain under what conditions an industry would locate near raw materials.
 - C. Using the map above and Weberian theory, explain the geography of ethanol plants in the United States.

6. A large portion of urban residents in the megacities of the periphery of the world system live in squatter settlements.
 - A. Describe a typical location of squatter settlements within urban areas of megacities on the global periphery.
 - B. Describe two factors that contribute to the formation of squatter settlements.
 - C. Give a detailed account of THREE consequences of the rapid growth of squatter settlements. The three consequences you discuss may be social, economic, political, or environmental.

Summary of Scoring Rubrics

Answers to the three free-response questions on the AP Human Geography Exam are scored at the AP Exam Reading, which takes place in June of each year. Readers are drawn from two pools of applicants: AP Human Geography teachers and college instructors of courses that are classified as human geography. For each of the three exam items, readers are trained to apply a scoring guide, or rubric, that has been constructed by the AP Human Geography Development Committee with input from the Chief Reader. Each item is assigned a value, which generally ranges from 6–10 points; scoring guides make it clear how each point is to be awarded. In a single exam, the three items may be worth three different point values: there may be a 6-point item, a 7-point item, and a 10-point item. Nevertheless, each item contributes equally to a student's performance score. The scores from the free-response section are then combined with the score from the multiple-choice portion of the exam, and the cumulative score is converted to a 1-to-5 scale.

Scoring rubrics typically require years to create. They go through multiple revisions and at least one field test using college students in a comparable course. The Chief Reader oversees the final revision of each rubric, which takes place in the days before the exam reading begins. The final revision of a rubric is based on a sample of students' written responses drawn from completed AP Human Geography exams taken in May. It also includes input from the exam reading's Question Leaders and their assistants; there is one Question Leader for each free-response question. Once the final version of the rubric has been approved, no changes are made, and Readers are trained to be accurate and consistent in their assignment of points. To assess the performance of each AP Exam Reader, the leadership team performs back-reading (or check-reading); the leadership team includes Table Leaders, Question Leaders, and the Chief Reader.

Each year, during the AP Reading, the leadership team selects student samples from the exam booklets to illustrate the quality of answers represented by all points on the scale for each free-response question. If a question is worth six points, for example, six student scripts will be used to illustrate how students were awarded or not awarded each point on the rubric. After the exam reading, the scoring rubrics and student samples, with commentary by the Chief Reader, are published on AP Central (http://apcentral.collegeboard.com/apc/members/exam/exam_information/2004.html).

