APHG 2015 Articulation

**I. Geography: Its Nature and Perspectives**

 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.

 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.

 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.
	+ Types of maps include reference maps (e.g., physical and political maps) and thematic maps (e.g., choropleth, dot, graduated symbol, isoline, cartogram).
	+ All map projections (e.g., Mercator, polar) inevitably distort spatial relationships (e.g., shape, area, distance, direction).
* 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.
* Use and interpret geographic models.
	+ Geographers use models as generalizations to think systematically about topics such as land use (e.g., von Thünen 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 region 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 AP Human Geography Course Description.
	+ 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.
	+ Regionalism refers to a group’s perceived identification with a particular region at any scale (e.g., Quebec).
* Analyze changing interconnections among places.
	+ Interconnections among places include exchanges of natural resources, agricultural commodities, finished products, services, people, information, money, and pollutants.

 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.

 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.

**II. Population and Migration**

 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)
	+ Physical factors (e.g., climate, land forms, water bodies) and human factors (e.g., cultural, economic, historical, political) influence the distribution of population.
* Use population density to explain the relationship between people and the environment.
	+ The three methods for calculating population density are arithmetic, physiological, and agricultural.
* 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).
	+ 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.
	+ Population pyramids are used to project population growth and decline and to predict markets for goods and services.

 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.
	+ Rates of natural increase and population-doubling times are used to explain population growth and decline
	+ 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.
	+ Malthusian theory is used to analyze population change and its consequences
	+ 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.
	+ Changing social, economic, and political roles for women have influenced the patterns of fertility, mortality, and migration.
* Explain the causes and implications of an aging population.
	+ An aging population has social (e.g., retirement), economic (e.g., dependency ratio), and political (e.g., voting patterns) implications.

 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).
	+ 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).
* 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.
	+ Voluntary migrations may be transnational, internal, chain, step, and rural to urban.
	+ Patterns of voluntary and forced migration may be affected by distance and physical features.
* 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.
* 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.

**III. Cultural Patterns and Processes**

 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.
* 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.
* 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).

 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.
	+ Language patterns and distributions can be represented on maps, charts, and language trees.
	+ Religious patterns and distributions can be represented on maps and charts.
	+ Ethnicity and gender reflect cultural attitudes that shape the use of space (e.g., women in the workforce, ethnic neighborhoods).
	+ Language, religion, ethnicity, and gender are essential to understanding landscapes symbolic of cultural identity (e.g., signs, architecture, sacred sites).
* 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).
	+ 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.
	+ Universalizing religions (e.g., Christianity, Islam, Buddhism) are spread through expansion and relocation diffusion.
* 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).
* 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.
	+ Popular culture origins are often urban, changeable, and influenced by media.

**IV. Political Organization of Space**

 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.
* 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.
* 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.
* Evaluate the nature and function of international and internal boundaries.
	+ Boundaries are defined, delimited, demarcated, and administered.
	+ International boundaries establish the limits of sovereignty and can be the source of disputes.
	+ Boundaries can influence identity and promote or prevent international or internal interactions and exchanges.
	+ The Law of the Sea has enabled states to extend their boundaries offshore, which sometimes results in conflicts.
	+ Voting districts, redistricting, and gerrymandering influence the results of elections at various scales.
* 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.
* 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).
	+ State morphology (e.g., compact, elongated, perforated, fragmented, prorupted states) has economic, political, and social implications.
* 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.

 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.
	+ Supranationalism is expressed in the creation of multinational organizations (e.g., UN, NATO, EU, ASEAN, NAFTA).
	+ 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).
	+ Advances in communication technology have facilitated devolution, supranationalism, and democratization.
* Apply the concepts of centrifugal and centripetal forces at the national scale.
	+ 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).
	+ 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)

## V. Agriculture, Food Production, and Rural Land Use

###  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.

### 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).

### Populations alter the landscape (e.g., terraces, irrigation, deforestation, draining wetlands) to increase food production.

### 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.

### 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.

###  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).

### 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.

### Intensive farming practices include market gardening, plantation agriculture, mixed crop/livestock systems, etc.

### Extensive farming practices include shifting cultivation, nomadic herding, ranching, etc

### Explain the spatial organization of large- scale commercial agriculture and agribusiness.

### Large-scale commercial agricultural operations are replacing small family farms.

### The transformation of agriculture into large-scale agribusiness has resulted in complex commodity chains linking production and consumption of agricultural products

### Technological improvements have changed the economies of scale in the agricultural sector.

### 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.

### Patterns of global food distribution are affected by political systems, infrastructure, and patterns of world trade.

###  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

### 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.

### 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.

### 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).

### 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.

### 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

###  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.

### 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.

###  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.

### Measures of gender inequality include reproductive health, indices of empowerment, and labor-market participation.

### The Human Development Index (HDI) is a composite measure used to show spatial variation in levels of development.

### 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.

### 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.

### International trade and trading blocs (e.g., EU and NAFTA) have become more important as a result of globalization.

### 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.

### 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.

### 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).

### 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.).

### Government initiatives at all scales may help promote economic development.

###  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.

### Ecotourism is a strategy used by some countries to help protect the environment and generate jobs.

## VII. Cities and Urban Land Use

###  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.

### Transportation and communication have facilitated urbanization (e.g., Borchert’s epochs of urban growth) and suburbanization.

### Improvements in agriculture and transportation, population growth, migration, economic development, and government policies influence urbanization.

### World cities function at the top of the world’s urban hierarchy and drive globalization.

### Megacities are rapidly increasing in countries of the periphery and semiperiphery.

### Megacities and world cities experience economic, social, political, and environmental challenges.

###  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.

### The gravity model is useful in explaining interactions among networks of cities.

###  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.

### The galactic city model is useful for explaining internal structures and urban development within metropolitan areas.

### World-regional models (e.g., Latin America, Africa) are useful (with limitations) for explaining land use and urban development.

###  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.

### 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).

### 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).

### 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.

###  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.

### 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.