APHUG 2015 Articulation

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

***ESSENTIAL KNOWLEDGE***

1. Geographic information provides context for understanding spatial relationships and human– environment interaction.

1. Geographical concepts include location, place, scale, space, pattern, nature and society, networks, flows, regionalization, and globalization.

1. 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.

1. 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.

1. Maps are used to represent and identify spatial patterns and processes at different scales.

1. Types of maps include reference maps (e.g., physical and political maps) and thematic maps (e.g., choropleth, dot, graduated symbol, isoline, cartogram).

1. All map projections (e.g., Mercator, polar) inevitably distort spatial relationships (e.g., shape, area, distance, direction).

1. 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.

1. 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).

1. 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).

1. Patterns and processes at different scales reveal variations in and different interpretations of data (e.g., age–sex pyramids, population density).

1. 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).

1. Types of regions include formal, functional, and perceptual.

1. World regions are defined for this course by the maps in the course curriculum section of the AP Human Geography Course Description.

1. World regions may overlap (e.g., Southeast Asia and Asia) and often have transitional boundaries (e.g., North Africa and Sub-Saharan Africa).

1. Regional thinking is applied at local, national, and global scales.

1. Regionalism refers to a group’s perceived identification with a particular region at any scale (e.g., Quebec).

1. Interconnections among places include exchanges of natural resources, agricultural commodities, finished products, services, people, information, money, and pollutants.

1. Geospatial technologies include geographic information systems (GIS), satellite navigation systems (e.g., global positioning system), remote sensing, and online mapping and visualization.

1. 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.

1. Data may be gathered in the field by organizations (e.g., census data) or by individuals (e.g., interviews, surveys, photography, informal observations).

1. Quantitative and qualitative geographic data are used in economic, environmental, political, and social decision making.

**Unit II. Population and Migration**

***ESSENTIAL KNOWLEDGE***

1. Factors that explain patterns of population distribution vary according to the scale of analysis (i.e., local to global)

1. Physical factors (e.g., climate, land forms, water bodies) and human factors (e.g., cultural, economic, historical, political) influence the distribution of population.

1. The three methods for calculating population density are arithmetic, physiological, and agricultural.

1. Population distribution and density influence political, economic, and social processes (e.g., redistricting, provision of services such as medical care).

1. Population distribution and density impact the environment and natural resources (e.g., carrying capacity).

1. Population distribution and density affect the need for infrastructure (e.g., housing) and urban services (e.g., sanitation).

1. Age, sex, and ethnicity are elements of population composition that may be mapped and graphed at various scales.

1. Population pyramids are used to project population growth and decline and to predict markets for goods and services.

1. Demographic factors that determine population growth and decline are fertility, mortality, and migration.

1. Rates of natural increase and population-doubling times are used to explain population growth and decline

1. Social, cultural, political, and economic factors influence fertility, mortality, and migration rates

1. The demographic transition model may be used to explain population change over time and space.

1. Malthusian theory is used to analyze population change and its consequences

1. The epidemiologic transition explains causes of changing death rates.

1. Types of population policies include those that promote or restrict population growth (e.g., pronatalist, antinatalist).

1. Changing social values and access to education, employment, health care, and contraception have reduced fertility rates in most parts of the world.

1. Changing social, economic, and political roles for women have influenced the patterns of fertility, mortality, and migration.

1. An aging population has social (e.g., retirement), economic (e.g., dependency ratio), and political (e.g., voting patterns) implications.

1. 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).

1. 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).

1. Forced migrations include those involving refugees, internally displaced persons, and asylum seekers.

1. Voluntary migrations may be transnational, internal, chain, step, and rural to urban.

1. Patterns of voluntary and forced migration may be affected by distance and physical features.

1. 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.

1. Governments institute policies to encourage or restrict migration.

1. Migration has consequences (e.g., remittances; spread of languages, religions, innovations, diseases) for areas that generate or receive migrants.

**Unit III. Cultural Patterns and Processes**

***ESSENTIAL KNOWLEDGE***

1. Culture is comprised of the shared practices, technologies, attitudes, and behaviors transmitted by a society.

1. Cultural traits are individual elements of culture and include such things as food preferences, architecture, and land use.

1. Geographers use maps and the spatial perspective to analyze and assess language, religion, ethnicity, and gender.

1. 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).

1. Regional patterns of language, religion, and ethnicity contribute to a sense of place, enhance place making, and shape the global cultural landscape.

1. Language patterns and distributions can be represented on maps, charts, and language trees.

1. Religious patterns and distributions can be represented on maps and charts.

1. Ethnicity and gender reflect cultural attitudes that shape the use of space (e.g., women in the workforce, ethnic neighborhoods).

1. Language, religion, ethnicity, and gender are essential to understanding landscapes symbolic of cultural identity (e.g., signs, architecture, sacred sites).

1. Types of diffusion include expansion (contagious, hierarchical, stimulus) and relocation.

1. 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).

1. Colonialism, imperialism, & trade helped shape patterns & practices of culture (e.g., language, religion).

1. Acculturation, assimilation, and multiculturalism are shaped by the diffusion of culture.

1. Ethnic religions (e.g., Hinduism, Judaism) are generally found near the hearth or spread through relocation diffusion.

1. Universalizing religions (e.g., Christianity, Islam, Buddhism) are spread through expansion and relocation diffusion.

1. Cultural landscapes are amalgamations of physical features, agricultural and industrial practices, religious and linguistic characteristics, and other expressions of culture (e.g., architecture).

1. Folk culture origins are usually anonymous and rooted in tradition and are often found in rural or isolated indigenous communities.

1. Popular culture origins are often urban, changeable, and influenced by media.

**Unit IV. Political Organization of Space**

***ESSENTIAL KNOWLEDGE***

1. Independent states are the primary building blocks of the world political map.

1. Types of political entities include nations, states, nation-states, stateless nations, multinational states, multistate nations, and autonomous regions.

1. The concept of the modern nation-state began in Europe.

1. Colonialism and imperialism led to the spread of nationalism and influenced contemporary political boundaries.

1. Independence movements and democratization have shaped the political map since the end of World War II.

1. The fall of Communism ended the Cold War, led to the creation of newly independent states, and changed the world balance of power.

1. Political power is expressed geographically as control over people, land, and resources (e.g., heartland, rimland, and organic theories).

1. Territoriality is the connection of people, their culture, and their economic systems to the land.

1. Boundaries are defined, delimited, demarcated, and administered.

1. International boundaries establish the limits of sovereignty and can be the source of disputes.

1. Boundaries can influence identity and promote or prevent international or internal interactions and exchanges.

1. The Law of the Sea has enabled states to extend their boundaries offshore, which sometimes results in conflicts.

1. Voting districts, redistricting, and gerrymandering influence the results of elections at various scales.

1. Political boundaries do not always coincide with patterns of language, religion, ethnicity, nationality, and economy.

1. Forms of governance include unitary states (centralized government) and federal states.

1. 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).

1. State morphology (e.g., compact, elongated, perforated, fragmented, prorupted states) has economic, political, and social implications.

1. 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.

1. Some forces that may lead to supranationalism include economies of scale, trade agreements, military alliances, and transnational environmental challenges.

1. Supranationalism is expressed in the creation of multinational organizations (e.g., UN, NATO, EU, ASEAN, NAFTA).

1. Some forces that may lead to devolution of states include physical geography, ethnic separatism, terrorism, economic and social problems, and irredentism.

1. 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).

1. Advances in communication technology have facilitated devolution, supranationalism, and democratization.

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).

1. 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)

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

***ESSENTIAL KNOWLEDGE***

1. Early hearths of domestication of plants and animals include Southwest Asia (e.g., the Fertile Crescent), Southeast Asia, and the Americas.

1. Patterns of diffusion (e.g., Columbian Exchange) resulted in globalization of various plants and animals.

1. Agricultural regions are influenced by the natural environment (e.g., climate, soils, landforms).

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

1. New technology and increased food production led to better diet, longer life, and more people available for work in factories.

1. 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.

1. Positive consequences of the Green Revolution include increased food production and a relative reduction in hunger at the global scale.

1. 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.

1. Plant and animal production is dependent on climatic conditions, including spatial variations in temperature and rainfall.

1. Some agricultural regions are associated with particular bioclimatic zones (e.g., Mediterranean, shifting agriculture, pastoral nomadism).

1. Agricultural production regions are defined by the extent to which they reflect subsistence or commercial practices, or intensive or extensive use of land.

1. Intensive farming practices incl market gardening, plantation agric., mixed crop/livestock systems, etc.

1. Extensive farming practices include shifting cultivation, nomadic herding, ranching, etc

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

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

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

1. Food is part of a global supply chain; products from less developed low-latitude regions (e.g., coffee, bananas) are often consumed globally.

1. Patterns of global food distrib are affected by political syst., infrastructure, and patterns of world trade.
2. Identify rural settlement patterns.

1. Rural settlement patterns are classified as clustered, dispersed, or linear

1. Von Thünen’s model helps to explain rural land use by emphasizing the importance of transportation costs associated with distance from the market.

1. Von Thünen’s model helps explain contemporary distribution of agric. regions (e.g., dairy, horticulture, wheat).

1. Regions of specialty farming (e.g., South Florida, California’s Central Valley) do not always conform to von Thünen’s concentric rings.

1. Environmental systems are affected by land use/land cover change (e.g., irrigation, desertification, deforestation, wetland destruction, conservation efforts).

1. Agricultural innovations (e.g., biotechnology, genetically modified organisms, organic farming, aquaculture) have resulted in ongoing debates over environmental, cultural, and health impacts.

1. 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.

1. 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).

1. Factors affecting the location of food-processing facilities include markets, economies of scale, transportation, government policies, etc.

1. The role of women in food production has changed (e.g., food gathering, farming, managing agribusiness).

1. The role of women has changed the types of food a family consumes and the way food is prepared.

## Unit VI. Industrialization and Economic Development

## *ESSENTIAL KNOWLEDGE*

### 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.

### The economy consists of primary, secondary, tertiary, quaternary, and quinary sectors.

### Alfred Weber’s model of industrial location emphasized the owner’s desire to minimize transportation and labor costs and maximize agglomeration economies.

### 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.

### 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.

### 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.

### 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.

### 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.

### 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.

## Unit VII. Cities and Urban Land Use

## *ESSENTIAL KNOWLEDGE*

### 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.

### 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.

### 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.

### Residential buildings and patterns of land use reflect a city’s culture, technological capabilities, and cycles of development.

### 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).

### 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.

### 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.

### 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.

### 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.