

Hunter College - CUNY
Dept. of Geography & Environmental Science
GEOG 101 Lecture Presentation Summary
Spring 2021

NOTE: *In the absence of in-person lecturing and face-to-face explanation of the material presented in the PowerPoint lecture slides, I will summarize the content of each lecture presentation, stressing the concepts and interrelationships that are essential to an introductory geography course. In essence, it is like giving you a transcript of my classroom lectures.*

If, after reading this summary and viewing the lecture presentation, the imbedded short videos and hot links to articles, you have any questions, or if you would like to contribute a comment or two, need clarification by other examples or have additional information on the topic, please do not hesitate to email me at agrande@hunter.cuny.edu.

LECTURE 03: Studying Geography

- The purpose of this lecture is to begin to look at the way geographers study people and their environment. We begin with “region” the core methodology for dividing the world into smaller units. Then we are introduced to other methodologies that give us perspectives within the Five Fundamental Themes of Geography.
- **Slide 2: Five Fundamental Themes Diagram.** We will focus on the theme of “region.”
- **Slide 3: Region.** A region is a part of the earth with unifying characteristics that allow us to focus on the particular aspects (uniqueness) found there. Regions can be physical or cultural or a combination of the two. Regionalization makes it easier to study the earth and its people. It is important to remember that regions (unique areas) can overlap.
- **Slides 4-10. Characteristics of Regions.** All regions have 5 characteristics: Location; Spatial Extent; Boundaries; Categorization; and Hierarchical Arrangement.
 - **Slide 4: Location, Spatial Extent and Boundaries.** We use South America to illustrate the 3 characteristics of a region: location, spatial extent and boundaries. Once we decide on the criteria for inclusion, we can locate it on the earth’s surface, we can measure its area, and we can draw a line around that area. The map included here illustrates natural vegetation regions of South America using a color-coded key. South America can be located on a world map and the region is further delimited by latitude and longitude. Each of the colored areas can be measured using the map scale. While the boundaries on this map are very crisp, in reality, most regional boundaries, especially those of natural phenomena, tend to be “fuzzy” and fade into each other.
 - **Slide 5: Categorization.** The 3 types of categorization that exist are: (a) formal, (b) functional and (c) vernacular.
 - **Slide 6: Formal Region.** A formal region has characteristics that give it a uniform appearance. This slide uses the counties of New York State as an example of the 62 formal political regions found within NYS. Within the boundaries of each county certain legal rules and regulations apply, many of which are different from neighboring counties. The right side-box lists other types of formal regions, all of which can be further subdivided into units with specific characteristics.
 - **Slide 7: Functional Region.** A functional region exists because of interaction or connections. The illustration shows transit regions – the area serviced by the tracks the Long Island Railroad (large map) and the rail lines servicing NYC (small box). *Remember this for Slide 10.* The box at the bottom lists other types of functional re-

gions that exist only because there is something there to make them happen. Remove the cell towers and you can no longer make a cell call within the region – but you have created a dead zone, a different type of region!

- **Slide 8: Vernacular Region.** A vernacular region is one that is created in a person's mind or one that is conceived or perceived and ultimately accepted by popular usage or tradition. The illustration gives three variations on the definition of the Midwest as a region. The box at the lower left lists some common vernacular regions. For New Yorkers and most Americans, Long Island is thought of the area outside of NYC on Long Island. Even though Brooklyn and Queens are located at the western end of Long Island, people consider just Nassau and Suffolk counties as being “on the island.” This is true even if they just cross a street when traveling from a Queens neighborhood to a Nassau County village.
 - **Slides 9 and 10: Hierarchical Arrangement.** All regions fit into a hierarchy of size and importance. There are major regions and minor regions. In fact, there are regions within regions within regions within regions, etc. In Slide 7 the LIRR region is a smaller unit of the NYC rail network. Slide 10 shows this using the Middle Atlantic area of the US as an example. North America is the largest region while the Rehoboth Bay Ecological Area the smallest. Within the ecological area there are many smaller ecological zones and North America fits into the Western Hemisphere, Northern Hemisphere and Planet Earth.
- **Slide 11: Regional Studies.** This diagram shows regional studies overlapping physical and human geography. Geographical techniques are used in the regional analysis.
 - **Slide 12: Geographic Methodologies.** The remaining slides of this lecture introduce the methodologies and viewpoints used by geographers to study people and their environment. There are numerous ways to approach any scholarly investigation or point of view (POV). The “Dualisms” reflect this: from a physical POV or a human POV; study themes (topics POV) or areas (regional POV); be descriptive (what's there?) or analytical (why is it there?). There is also the “Time Reference” approach: past, present or future. In reality, geographic study uses all but a person may decide to focus on one as the driving force.
 - **Slide 13: Time Reference.** This slide explains “Past/Present/Future” from a geographer's point of view. In the **Geography of the Present**, we want to learn from the past and not repeat mistakes and at the same time evaluate current conditions for future events. The **Geography of the Past** is also a subfield of geography called *Historical Geography*. It is a developmental process that studies change and looks at how we have reached this point in time. **Geography of the Future** builds on our experiences in the past and present to make assumptions about how things will be in the years to come: regional and urban planning are offshoots of this methodology.
 - **Slide 14: Geographic Research Diagram.** This diagrammatic representation of the stages of geographic research is in circular format because you can begin at any place and proceed through the stages. We will start at Stage 1: Assess the need. Why are we doing this? What are we trying to find out? Stage 2: Collect information. This is done by employing various data collecting tools from library research to field work to remote sensing techniques. Stage 3: Process the data. Without processing the information collected, the raw data is useless. This especially true of digital data from electronic sources. Stage 4: Analyze and interpret the data. Once processed we can try to make heads and tails out of it. What is useful? What are the insights? Step 5: Create an output. We share the findings with others through papers, reports, maps, recommendations and the like. Step 6: Application. We apply the findings/results to a real-world setting. Once it is applied, we have to as-

certain if there is a new need (back to Step 1 Reassessment of Need) to hone the data collected or move in a new direction or search for more data.

- **Slide 15** is a summary of the previous slides.
- **Slide 16: Spatial Distribution.** The core of geography is spatial distribution. Be sure you are able to define and distinguish the 5 terms: *density, concentration, pattern, spatial interaction* and *diffusion*.
- **Slide 17-20: Spatial Distribution Definitions.** The three interrelated terms are defined and illustrated. Be sure to differentiate between density (number of times), concentration (grouping) and pattern (arrangement). The answer to the question on Slide 18 is Box 3 with 20 dots in the square. Slide 19 shows grids with the same density (6 dots) but different concentrations – one is grouped (more concentrated) and the other spread out (less concentrated). Slide 20 focuses on arrangement of the dots. All grids have the same density (6 dots) but different concentrations with the added spatial element of pattern to further differentiate the distribution of dots.
- **Slide 21: Spatial Interaction Definitions.** Here we look at the movement and contact between points described in Slides 17-20. The four factors to take into consideration studying the interaction of points are distance, connectivity, accessibility and distance decay.
 - **Distance** is “How far?” and is determined in 3 ways: **linear distance** as measured on the ground, **time distance** as how long does it take to get from one point to another, and **psychological distance** as how long you do *think* it will take to get there. (most urban dwellers think in time distance while rural people may know mileage. Most of us have mental distances in our heads with fun things being close by and places we do not like or dread going to as being “sooo far away!”).
 - **Connectivity** is how places are linked and how the points are connected. Think of a transit system.
 - **Accessibility** is the ease of moving over a distance through various linkages.
 - **Distance decay** is the concept that as actual distance increases or connectivity lessens (increasing the route by length or time) or accessibility becomes more difficult (adding time to the movement), there will be less interaction. The graph illustrates this point. Other examples are reduced mass transit options, clogged highways, less direct flights by airlines.
- **Slides 22-23: Diffusion. Defined as the spread from source (original location),** we study movement away from a point of origin and the paths (routes) taken to get to a different location. When two or more routes are able to reach a new location, a network is created. The four types of diffusion are defined and illustrated in **Slide 23**:
 - **Expansion diffusion** - spread away from a core concentration to fringe areas.
 - **Contagious diffusion** - spread to nearby adjoining areas by contact (mobility).
 - **Relocation diffusion** - movement to another separate new location.
 - **Hierarchical diffusion** - movement between levels by skipping intermediate areas.

COVID-19 has spread using all four means: spread locally from a high concentration cluster of cases, moved to adjoining areas by intermingling, moved to nearby separate locations through regional travel, and moved worldwide through airplane between large cities.
- **Slides 24-25. Examples of maps showing diffusion.**
- **Slides 26-27. Examples of maps showing density, concentration and pattern.**
- **Slide 28. Examples of maps showing spatial interaction**
- **Slide 29: Next Lecture Topic: Making Maps**