

Maps and the Geospatial Revolution

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Course Outline – December, 2013

Lesson 1: The Geospatial Revolution

- How We Navigate
- Making Decisions
- Sharing Stories
- The Changing Nature of Place
- What is Geography?
- Maps to Tell Stories, Maps to Provide Context
- The Earth is Round and Maps are Flat
- Video Assignment: Geospatial Revolution, Episode 1 (Full Episode)
- Lab Assignment: Ecoregion and Population Mapping (Population Dynamics and Scale)
- Discussion Assignment: Privacy in the Geospatial Revolution
- Quiz # 1

Lesson 2: Spatial is Special

- Thinking like a Geographer (by thinking Aspatially)
- Spatial Relationships
- Understanding Scale
- What About Time?
- Video Assignment: Geospatial Revolution, Episode 2, Chapter 3 (Powering Business)
- Lab Assignment: Exploring Change in Historical Data (Data Quality & Time)
- Discussion Assignment: Scale, Time, and Certainty – When do they Matter?
- Quiz # 2

Lesson 3: Understanding Spatial Data

- Where Are We Now?
- The Earth From Above
- Who Makes Spatial Data?
- Describing Spatial Data
- Video Assignment: Geospatial Revolution, Episode 4, Chapter 4 (Mapping Power to the People)
- Lab Assignment: Mapping Earthquakes (Data Handling and Symbolization)
- Discussion Assignment: Mapping Disasters – What Works, and What Doesn't?
- Quiz # 3

Lesson 4: Doing Spatial Analysis

- **Overlay (and Beyond!)**
- **Making Surfaces**
- **Mapping Rates vs. Mapping Totals**
- **Video Assignment: Geospatial Revolution, Episode 4, Chapter 3 (Tracking Disease)**
- **Lab Assignment: Social Media Map Analysis (Creating and Comparing Surfaces of Tweets)**
- **Discussion Assignment: What Can Be Mapped Using Geospatial Social Media?**
- **Quiz # 4**

Lesson 5: Making Great Maps

- **Who Want A Map? Where Will It Be Seen? What Is Its Purpose?**
- **Designing a Layout**
- **Symbolization**
- **Choosing Colors**
- **Data Classification**
- **Text on Maps**
- **Video Assignment: Geospatial Revolution, Episode 4, Chapter 1 (Monitoring a Changing Climate)**
- **Lab Assignment: Storytelling with Maps (ArcGIS Online for Novices, StoryMaps for Advanced Users, QGIS or any other desktop GIS for Expert Users)**
- **Discussion Assignment: Critiquing the Best (and Worst) Maps for Storytelling**
- **Final Exam**