

3. Scale as Scope

 [Print](#)

Often "scale" is used as a synonym for "scope" or "extent." For example, the title of an international research project called The Large Scale Biosphere-Atmosphere Experiment in Amazonia (1999) uses the term "large scale" to describe a comprehensive study of environmental systems operating across a large region. This usage is common not only among environmental scientists and activists, but also among economists, politicians, and the press. Those of us who specialize in geographic information usually use the word "scale" differently, however.

2. Scale	up	4. Map and Photo Scale
--------------------------	--------------------	--

The Nature of Geographic Information

Search

Chapters

- ▶ [Chapter 1: Data and Information](#)
- ▼ [Chapter 2: Scales and Transformations](#)
 - [1. Overview](#)
 - [2. Scale](#)
 - **[3. Scale as Scope](#)**
 - [4. Map and Photo Scale](#)
 - [5. Graphic Map Scales](#)
 - [6. Map Scale and Accuracy](#)
 - [7. Scale as a Verb](#)
 - [8. Geospatial Measurement Scales](#)
 - [9. Coordinate Systems](#)
 - [10. Geographic Coordinate System](#)
 - [11. Geographic Coordinate Formats](#)
 - [12. Horizontal Datums](#)
 - [13. Geoids](#)
 - [14. Ellipsoids](#)
 - [15. Control Points and Datum Shifts](#)
 - [16. Coordinate Transformations](#)
 - [17. Plane Coordinate Transformations](#)

- 18. Datum Transformations
- 19. Map Projections
- 20. UTM Coordinate System
- 21. The UTM Grid and Transverse Mercator Projection
- 22. UTM Zone Characteristics
- 23. National Grids
- 24. State Plane Coordinate System
- 25. The SPC Grid and Map Projections
- 26. SPC Zone Characteristics
- 27. Map Projections
- 28. Geometric Properties Preserved and Distorted
- 29. Classifying Projection Methods
- 30. Summary
- 31. Bibliography
- ▶ [Chapter 3: Census Data and Thematic Maps](#)
- ▶ [Chapter 4: TIGER, Topology and Geocoding](#)
- ▶ [Chapter 5: Land Surveying and GPS](#)
- ▶ [Chapter 6: National Spatial Data Infrastructure I](#)
- ▶ [Chapter 7: National Spatial Data Infrastructure II](#)
- ▶ [Chapter 8: Remotely Sensed Image Data](#)
- ▶ [Chapter 9: Integrating Geographic Data](#)

Navigation

- [login](#)

Author: David DiBiase, Senior Lecturer, John A. Dutton e-Education Institute, and Director of Education, Industry Solutions, Esri. Instructors and contributors: Jim Sloan, Senior Lecturer, John A. Dutton e-Education Institute; Ryan Baxter, Senior Research Assistant, John A. Dutton e-Education Institute, Beth King, Senior Lecturer, John A. Dutton e-Education Institute and Assistant Program Manager for Online Geospatial Education, and Adrienne Goldsberry, Senior Lecturer, John A. Dutton e-Education Institute; College of Earth and Mineral Sciences, The Pennsylvania State University.

Penn State Professional Masters Degree in GIS: Winner of the 2009 Sloan Consortium award for Most Outstanding Online Program

This courseware module is offered as part of the Repository of Open and Affordable Materials at Penn State.

Except where otherwise noted, content on this site is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

The College of Earth and Mineral Sciences is committed to making its websites accessible to all users, and welcomes comments or suggestions on access improvements. Please send comments or suggestions on accessibility to the site editor. The site editor may also be contacted with questions or comments about this Open Educational Resource.



The John A. Dutton Institute for Teaching and Learning Excellence is the learning design unit of the College of Earth and Mineral Sciences at The Pennsylvania State University.

Navigation

- [Home](#)
- [News](#)
- [About](#)
- [Contact Us](#)
- [People](#)
- [Resources](#)
- [Services](#)
- [Login](#)

EMS

- [College of Earth and Mineral Sciences](#)
- [Department of Energy and Mineral Engineering](#)
- [Department of Geography](#)
- [Department of Geosciences](#)
- [Department of Materials Science and Engineering](#)
- [Department of Meteorology and Atmospheric Science](#)
- [Earth and Environmental Systems Institute](#)
- [Earth and Mineral Sciences Energy Institute](#)

Programs

- [Online Geospatial Education Programs](#)
- [iMPS in Renewable Energy and Sustainability Policy Program Office](#)
- [BA in Energy and Sustainability Policy Program Office](#)

Related Links

- [Penn State Digital Learning Cooperative](#)
- [Penn State World Campus](#)
- [Web Learning @ Penn State](#)



2217 Earth and Engineering Sciences Building, University Park, Pennsylvania, 16802
[Contact Us](#)

[Privacy & Legal Statements](#) | [Copyright Information](#)
The Pennsylvania State University © 2023