
NATR 213
Basics of Geospatial Technology
Spring 2024

Final Examination Study Guide

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- Know how to define GIS and what can it do.
- Understand the primary benefits of GIS.
- Know the related fields of GIS.
- Understand the primary advantages, capabilities, current uses, and the potential sources of data for GIS.
- Know the primary differences between vector and raster data.
- Understand the differences among the three types of vector data used in GIS.
- Know how to work with vector data in QGIS, including standard GIS data formats used for storing feature and attribute data, attribute table format, joining databases, spatial joins, and creating vector data using digitizing.
- Know how to work with map scale.
- Know the difference between feature and choropleth maps.
- Understand the basic graphic design principles in GIS including color, contrast, symbolizing features, and classification of features based on attribute(s).
- Understand how to work with GIS queries.
- Understand the basic concepts of GIS output, including categories of map audience, and acceptable map output.
- Know the difference among the four types of maps covered in class.
- Know how to interpret topographic maps, including the basic characteristics of contour lines.
- Know the basic principles of spatial analysis and the difference among the geoprocessing tools discussed in class.
- Understand the fundamentals of GPS.
- Know the three components of GPS.
- Understand the concept of satellite ranging.
- Understand how a position can be determined using a GPS unit.
- Name the factors that affect GPS accuracy.
- Know the basic principles of remote sensing and DOI.
- Know types of orthoimages available from the NYS GIS Clearinghouse.
- Understand the naming system for digital orthoimagery available from the NYS GIS Clearinghouse (both the 1994-1999 and high resolution editions).
- Understand the reasons, basic principles, and types of DGPS .
- Know the sources of real-time DGPS..
- Know the basic “tools” and buttons covered in QGIS (you need to review the questions posed on the laboratory exercises and be familiar with the answers)

Note: The final exam for NATR 213 is closed book. It will be held at the start of laboratory in week#11 in Bicknell 208 (i.e, Friday - 04/05/2024). The exam will be 60 minutes in length and will generally follow the same format as the online quizzes (i.e., multiple choice and fill in the blank questions) with the same setup (i.e., questions being listed in random order with the available choices for the multiple choice questions being also listed in random order). The exam will include 60 (mostly multiple choice with a few fill-in-the-blank) questions.