C-ID Descriptor
Map Interpretation and Analysis

Descriptor Details

- **Descriptor Title**: Map Interpretation and Analysis
- **C-ID Number**: 150
- **Units**: 2.0
- **Date of Last Revision**: 10/12/2017 04:43:51 PM PDT

General Description

Introduction to maps, images and geographic techniques. Technologies include map and aerial photograph interpretation, tabular data, spatial statistics, cartography, Global Positioning Systems (GPS), Internet mapping, remote sensing and Geographic Information Systems (GIS) that aid in data collection, analysis and presentation.

Prerequisites

No information provided

Corequisites

No information provided

Advisories

No information provided

Content

1. **Introduction**
    a. The scientific method as applied to spatial analysis
    b. Data (types, collection methods, potential for misuse)
    c. Importance of maps for communication and decision-making purposes

2. **Foundations in Maps, Survey, and Cartography**
    a. Map formats
    b. Scale
    c. Direction and distance
    d. Coordinate systems
    e. Projections
    f. Geodesy
3. **Survey of Mapping Technologies**
    a. Current Internet-based mapping applications
    b. Global Positioning Systems (GPS)
    c. Remote sensing
    d. Geographic Information Systems (GIS)
4. **Traditional Data Collection, Processing and Analysis**
    a. Tabular recording of field-generated data
    b. Basic statistical analysis
    c. Display tools for numeric data
5. **Geospatial Data Collection, Processing and Analysis**
    a. GPS technology and field application
    b. Collection, creation and analysis of spatial data in a GIS
    c. Aerial imagery interpretation
    d. Basic cartography and display of data

Lab Activities

No information provided

Objectives

At the conclusion of this course, the student should be able to:

- Describe the major modes of geographic inquiry.
- Demonstrate an understanding of mapping concepts and the ability to interpret maps and mapped data.
- Describe geographic technologies and their use in collecting, analyzing and displaying geospatial data.
- Demonstrate the ability to use geographic technologies in collecting, analyzing and displaying geospatial data.

- Interpret displays of tabular data in spatial visualizations.

Evaluation Methods

Formal evaluation may be based on successful completion of exercises, homework assignments, written reports, quizzes, and examinations.

Textbooks

- Kimerling, A.J., et al. *Map Use: Reading, Analysis and Interpretation*

Or other text as selected by the instructor