

GIST-115-MAP USE, INTERPRETATION & DESIGN 4 CREDITS

SYLLABUS

CATALOG DESCRIPTION

The basic principles, functions, origins, use, interpretation, and cartographic design of maps will be covered through lecture discussion and lab exercises. Topics include understanding map projections, scale, direction, grids, color theory, display of qualitative and quantitative data, thematic, general reference, and special purpose maps.

Prerequisites: None

Semester Offered: Fall, Spring

Common Student Learning Outcomes

Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in...

BROAD AND SPECIALIZED LEARNING

Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

CRITICAL THINKING

Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

CULTURAL AND CIVIC ENGAGEMENT

Students will act purposefully, reflectively, and ethically in diverse and complex environments.

EFFECTIVE COMMUNICATION

Students will exchange ideas and information with clarity in multiple contexts.

INFORMATION LITERACY

Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

INTEGRATING TECHNOLOGIES

Students will demonstrate fluency in the application and use of technologies in multiple contexts.

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.

Course Learning Outcomes

Upon successful completion of the course, the student will be able to...

1. Acquire a basic understanding of the principles, functions, and origins of maps.
2. Understand how to use, interpret, and analyze maps to obtain information about a wide variety of topics.

3. Acquire a fundamental understanding of map projections, datums, and coordinate systems.
4. Understand the limitation of maps by recognizing the generalizations inherent in geospatial data and maps like symbols, color, and quantization.
5. Understand basic cartographic design principles.
6. Understand how to select the appropriate map type for quantitative and qualitative data representations.

Specific Learning Outcomes

Upon successful completion of the course, the student will be able to...

1. Measure the distance between two locations on a map using a grid and map scale. (B,I)
2. Convert a representative fraction scale to a verbal scale and vice versa. (B,I)
3. Determine the appropriate elevation of a given location on a reference map and the precise elevation of a given location on a topographic map. (B,I)
4. Describe the purposes and distinguishing characteristics of selected map projections and coordinate systems. (B,C,E,I)
5. Identify map types and articulate reasoned critiques on their effectiveness. (B,C,E,I)
6. Identify and interpret cartographic information from a variety of maps. (B,C,E,I)
7. Construct basic map and graph types. (B,C,E,I)