SAN JUAN COLLEGE
Success Matters

GIST-201-GIS II 4 CREDITS

SYLLABUS

CATALOG DESCRIPTION

This course studies symbology and categorization, quantity and pattern recognition through classification and density mapping for comparison. Inside-outside, distance and time-based analyses are also studied as well as displaying geospatial distributions and the use of spatial statistics to establish confidence levels for said analyses.

Prerequisites: GIST-151

Semester Offered: 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. To understand the various methods and skills of mapping location and quantity.
2. To understand and use GIS to determine properties of inside-outside, distance and parametric change in data.

A copy of this approved syllabus is on file in the dean's office.

3. To understand the theory and practice of geospatial distribution, patterns and clustering.
4. To understand the theory and practice of designing a successful geodatabase.
5. To understand how to appropriately work with geospatial data.
6. To understand how to use a GIS to perform geospatial analysis and produce corresponding map(s)/reports.

Specific Learning Outcomes

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

1. Use a GIS to produce maps that show: (B,C,CC,E,I)
   a. Categorical data
   b. Specific attribute values
   c. Data in specific ranges
   d. Quantities
   e. Classes
   f. Data series
   g. Charts and reports
   h. Value density
2. Prepare data for use in analyses including appropriately performing the following operations: (B,C,I)
   a. Overlaying
   b. Buffering
   c. Clipping
   d. Nearness
   e. Cost Distance
3. Perform geospatial analyses such as: (B,C,I)
   f. Measuring distribution using geostatistical methods
   g. Pattern analysis
   h. Cluster analysis
4. Apply appropriate scales. (B,C,I)
5. Interpret field data. (B,C,E,I)
6. Draw maps of legal descriptions. (B,C,E,I)
7. Employ mapping techniques to CAD to prepare drawings. (B,C,I)