



## **GIST 250 Advanced Database Concepts Section Name Section Credit Hours Credits**

### **Syllabus**

## Course Information

**Meeting times and location:** section meeting\_times section location

**Catalog description:** As an integral part of GIS, the associated relational database system is used for query and analysis operations that aid in solving spatial problems. This introduction to relational database systems includes topics of; database models, query language, database design, data definition, data dictionaries and linking databases to GIS.

**Prerequisites:** GIST-151 or Instructor Approval

**Terms offered:** Fall and Spring

### **Section-specific Course Description:**

## Course Level Objectives

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.
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.

## Required Technology and Software

- Canvas
- Chrome, Safari, or Firefox

## Course Requirements

Topics studied in this course include:

- How to create spatially enabled databases using PostgreSQL and PostGIS
- What a spatial database is and why you would want to use one.
- What SQL is, use cases for it, and how it can be applied to geospatial concepts.
- How to load your spatial data into PostGIS and access it from a variety of clients, especially QGIS
- The basics of SQL
- The basics of database administration

## Grading

Your grade will be based on the percentage of total point value earned from assignments.

## Course Time Commitment

You should expect to spend 6-9 hours outside of class each week on this course.

## Canvas Participation and Expectations

Assignments and grades are recorded in Canvas. You are expected to keep current with course proceedings via Canvas.

## Participation and Attendance Policy

Attendance is highly recommended, but is not graded. Your attendance has a large enough effect on your grade without the additional penalty of a lower grade to be calculated with your actual coursework.

Furthermore, grades are supposed to reflect your mastery of the subject matter, not a reflection of behavior. Much behavior is implied in the grade.

## Instructor Response Times & Regular Interaction Expectations

You can expect to get returned texts, phone messages, and emails within 24 hours.

## Key Dates to Remember

[Full Academic Calendar](#)

## Course Schedule

Assignments will be posted as given with their individual due dates in sequential fashion.

## Technical Support

Technical support is available through the San Juan College Help Desk 24/7/365. The help desk can be reached at 505-566-3266 or by creating a ticket at [San Juan College Help Desk](#).

For password reset and Canvas support, visit the [Student Technology Guide](#) website.

## Accessibility/Privacy Policies for all Technology Tools Used

[Accessibility/Privacy Policies for all Technology Tools Used](#)

## Student Support

At San Juan College, we are committed to supporting your academic success and overall well-being. We recognize that college life can be challenging and stressful, impacting both learning and personal health. We are here to help you succeed.

### **Academic Support and Resources**

We provide a range of academic support services to help you stay on track on your educational journey. Free resources include tutoring, computer loans, life skills workshops, and so much more. Visit the [Academic Support and Resources](#) webpage to learn more about support and resources available through Academic Advising, the Tutoring Center, the Student Resource Center (formerly Student Achievement Center) and the Testing Center.

### **Student Support and Resources**

If you or someone you know could benefit from counseling, accessibility services, career exploration, veteran transitional assistance, or any of our other support services, visit the [Student Support and Resources](#) webpage where you'll find detailed information about various resources available to you as an SJC student.

We encourage you to take advantage of these free resources to enhance your college experience and ensure your success.

## College Policies and Resources for Current Students

The [Student Handbook](#) provides information on student support, student organizations, and student conduct policies at San Juan College.

The San Juan College catalog outlines the [Academic Policies](#) students need to know.

## Healthy and Safe Practices for Being on Campus

We want a healthy and safe campus for students, faculty, staff, and guests.

### **Contagious diseases and your responsibility:**

If you have COVID-19 symptoms, fever, flu or even the common cold, you should stay home. Do not come to campus if you are feeling sick. Contact your instructor about missing class (and review your instructor's policies on missed or late work). Being sick does not necessarily excuse you from completing your work on time.

### **Safety on campus and your responsibility:**

If you are on campus and experience or witness an emergency, call 9-1-1 first and then the Department of Public Safety at 505-566-3333 (or just 3333 if calling from a campus phone).

When you are on campus, be aware of your surroundings. If you need an escort to your vehicle, call 505-566-4444 (DPS non-emergency line) or 505-215-3091 (officer on duty line).

The College will send information for campus emergencies through SJC AlertAware, email and the webpage. Stay informed and stay safe.

## Inclement Weather Information

Students will receive notification of class delays and cancellations due to inclement weather via the SJC AlertAware and SJC student email. Face-to-face classes will not meet in person; however, students are advised to check with instructors about alternative meeting options, as some may choose to meet via zoom. Hybrid classes will meet as scheduled via zoom. For questions regarding your class delay or cancelation, please contact your instructor.

## Online Course Fee

Online Courses - San Juan College requires all online courses to include some form of assessment to demonstrate the mastery of course objectives. This could include exams, capstone projects, e-portfolios, presentations, final papers or other appropriate assessments. The use of a proctoring platform, plagiarism detection software or other method to ensure that assessments are completed by the enrolled student is required.

A course fee of \$5.00 is assessed for all online courses at San Juan College to cover the cost of the above services. Students who are required to take a proctored exam and choose to use a physical testing center outside the SJC Testing Center or SJC Disability Services will be responsible for the cost of using that center.