

GEOG 4103 – Introductory Spatial Data Analysis

Instructor

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Course Website

All course materials, course schedule, announcements, lectures, exercises, homework and lab assignments, quizzes, exams, and other course information will be posted on Carmen (<https://carmen.osu.edu>).

Course Description

This course provides an introduction to statistical analysis of spatial data emphasizing spatial thinking. In this course fundamental statistical methods are presented in the context of geographic sciences. Students will develop a fundamental understanding of statistical concepts and the tools geographers use to solve statistical problems. Lectures will introduce students a range of fundamental statistical and spatial analysis methods used in geographic problem solving. Labs will help students develop skills to analyze and interpret spatially referenced data using computer software. This course emphasizes hands-on experience and practical understanding. Real-world examples from a variety of topical areas in geography will be used in the lectures and labs.

Required Textbook

[R] Rogerson, P.A. (2015). *Statistical Methods for Geography: A Student's Guide (Fourth Edition)*, Sage Publications, London.

Prerequisites

Math 1116 or 1130 or above, or Math Placement Level M or L, or permission of instructor.

Mode of Delivery

This course is a hybrid course with asynchronous online lectures and in-person labs in Derby 135. Course materials are divided into **weekly modules** that are released ahead of time. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

Grading Policy

Your final course grade will be based on the following weighting of assessment components:

Homework	15%
Quizzes	15%
Labs	30%
Midterm Exam	15%
Final Exam	25%

- All homework and lab assignments should be turned in on time. Late submissions will be penalized by 5% (of the total possible score) per day late, up to 30% (of the total possible score).
- There will be multiple quizzes, a midterm exam during the semester as well as a final exam. Quizzes and exams must be turned in on time to receive credits. Late submissions will not be accepted. No make-up quizzes and exams will be given unless legitimate documents for medical or personal emergency are presented in advance.

Final course grades will be assigned based on the following grading scale:

A: 93–100 | **A-:** 90–92 | **B+:** 87–89 | **B:** 83–86 | **B-:** 80–82 | **C+:** 77–79
C: 73–76 | **C-:** 70–72 | **D+:** 67–69 | **D:** 60–66 | **F:** below 60

Academic Misconduct

Please help maintain an academic environment of mutual respect and fair treatment. It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term academic misconduct includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). Academic misconduct will not be tolerated and will be dealt with procedurally in accordance with university policy, which is available at <http://oaa.osu.edu/coam.html>. For additional information, see the Code of Student Conduct at <http://studentlife.osu.edu/csc/>.

Students with Disabilities

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. You are also welcome to register with Student Life Disability Services to establish reasonable accommodations. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. **SLDS contact information:** slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Statement on Title IX

All students and employees at Ohio State have the right to work and learn in an environment free from harassment and discrimination based on sex or gender, and the university can arrange interim measures, provide support resources, and explain investigation options, including referral to confidential resources.

If you or someone you know has been harassed or discriminated against based on your sex or gender, including sexual harassment, sexual assault, relationship violence, stalking, or sexual exploitation, you may find information about your rights and options at titleix.osu.edu or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu. Title IX is part of the Office of Institutional Equity (OIE) at Ohio State, which responds to all bias-motivated incidents of harassment and discrimination, such as race, religion, national origin and disability. For more information on OIE, visit equity.osu.edu or email equity@osu.edu.

Statement on Diversity

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.