

Course Syllabus

070-335

Analysis of Archaeological Data

Class hours: Wednesday 2:15-5:15 PM
Classroom: Hickman Hall 213

Instructor:

Zeljko Rezek

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Office: Biological Sciences, Suite 208

Office hours: Mon 1-5pm, Tue 10-12pm, Wed 10-11am & 12.30-1.30pm, Thu 12.30-1.30pm, or by appointment

Course description

This course is an introduction to retrieving, processing and analyzing data in archaeology. From obtaining the data by excavation, survey and analysis of material remains, through analyzing and interpreting data by the use of descriptive and basic inferential statistics, until the presentation of the results of such analyses, here we will go through most of the levels of handling with data in archaeology. The course will also include an introductory analysis of spatial data in archaeology.

Pre/Co-requisites

Students are expected either to have taken already, or are taking during the same term, an introductory course in archaeology (070-105). Alternatively, they can ask for the permission to enroll from the instructor.

Required readings

There is no required textbook for this course. The readings are comprised of primary literature and selected texts, which will be available on Sakai as needed. However, students may find helpful one of the following texts, especially with topics related to statistical analysis:

- Welkowitz, J., B. H. Cohen, R. B. Ewen 2006. *Introductory Statistics for the Behavioral Sciences*, Wiley, Hoboken, NJ
- Drennan, R. D. 2010. *Statistics for Archaeologists: A Common Sense Approach*, Springer

Required software

Each student will be provided with a free 1-year student copy of ArcGIS software for studying and performing spatial analysis.

Learning objectives

- Become familiar with the basics of retrieving and generating data in archaeology
- Acquire basic knowledge about descriptive (distribution, measures of central tendency, etc) and inferential statistics (t-test, ANOVA, chi-square, etc).
- Learn some of the very basics of spatial analysis in archaeology with the use of a GIS software
- Acquire basic ability to critically examine presented data.

Exam and assignments structure

The requirements for this course include two midterms, a final project, and a class project paper in the following evaluation scheme:

Midterm I 20%
Midterm II 20%
4 Assignments 5% each
Final Project 30%
In-class attendance and participation 10%

Directions on the format and content of the final project will be announced. The final project will be related to spatial analysis of archaeological data.

If you require additional time or alternative accommodations on exams please contact the Office of Disability Services for Students at <http://disabilityservices.rutgers.edu/> to obtain the Letter of Accommodation. Please, present the letter to me at least two weeks prior the exam.

Course Policies

Attendance: Students are expected to attend all classes. If you expect to miss up to two classes, please use the University absence reporting website

<https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence (an automatic email notification will be sent to me). Thereafter, an absence note from the Dean (of the student's School or College) is required for each following absence.

Makeup exam: Students will be allowed to take the makeup exam only if they provide a letter from the Dean (of their School or College) verifying that the reason for missing the scheduled exam was justifiable.

Academic integrity: There will be no tolerance of academic dishonesty of any kind. All students must strictly follow the Rutgers University Academic Integrity Policy. Please refer to <http://academicintegrity.rutgers.edu/academic-integrity-at-rutgers> .

Course Schedule

Week	Topics
1 (Jan 22)	Introduction to the course
2 (Jan 29)	Data and the primary literature
3 (Feb 5)	Data generation; Sampling

4 (Feb 12)	Descriptive statistics I (Measures of central tendency, etc)	
5 (Feb 19)	Descriptive statistics II (Variability, etc)	Assignment #1
6 (Feb 26)	Inferential statistics I (Probability, t-test)	Assignment # 2
7 (Mar 5)	Midterm exam I Inferential statistics II (Chi-square)	
8 (Mar 12)	Inferential statistics III (ANOVA)	
9 (Mar 19)	<i>No class: Spring recess</i>	
10 (Mar 26)	Inferential statistics IV (Correlation and regression)	Assignment # 3
11 (Apr 2)	Introduction to spatial analysis in archaeology; Raster spatial analysis I	Assignment # 4
12 (Apr 9)	Midterm exam II Raster spatial analysis II	
13 (Apr 16)	Raster spatial analysis III	
14 (Apr 23)	Vector spatial analysis I	
15 (Apr 30)	Vector spatial analysis II	

Final project due by May 5, 5pm.