

# INTRODUCTION TO GIS

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Room and date: Lab 1, 10-12 PM Sun

## Course description and objectives

The aim of this course is the definition of geographic information systems as an important tool in spatial research and analysis, through the identification of the most important theoretical principles and practical applications in archaeological studies.

## Reading and lectures

The readings are listed in the syllabus as required materials. Note the class will have Power Point presentation of visual some of which are not covered by the reading. Therefore it is to your advantage not to miss the class sessions since they will appear on the midterm and finals.

## Required Readings and materials

Students are required to read the following books:

Huisman, O. and de Py, R.A. 2001. *Principles of Geographic Information Systems, An introductory textbook* (ITC Educational Textbook Series 1), Enschede, Den Haag.

Pdf available from [https://www.itc.nl/library/papers\\_2009/general/principlesgis.pdf](https://www.itc.nl/library/papers_2009/general/principlesgis.pdf)

This will provide some background to what you are taught during the lectures.

Additional relevant texts for the study of GIS are also:

Conolly, J. and Lake, M. 2006. *Geographical information systems in archaeology*, University Press, Cambridge.

Bevan, A.H. and Lake, M. (Eds.) 2013. *Computational Approaches to Archaeological Spaces*, Walnut Creek, Left Coast Press.

Students will be provided with the following software:

- QGIS
- Global Mapper 18
- Microsoft Office

## Grade

Evaluation for this course will be based on a midterm, final a term paper and response papers. The grade breakdown is as follows:

The first exam (15%)

The second exam (15%)

Quizzes (10%)

Practical (10%)

The final exam (50%)

## Attendance

Attendance to all the classes is strongly recommended.

## Paper, Quizzes and Class Presentations

Each Week you will have assigned reading (check the list). They have to be read before the class. You will receive question about these reading every week. Have should have a separate journal, where you will write the response papers. The paper is going to be s short research paper of 10-12 pages.

## Calendar

Week	Subject
Week5	Explores practical applications of predictive modeling and GIS
Week6	Geographical Information and data types
Week7	Management data and processing systems
Week8	First exam
Week9	Spatial data Analysis & Spatial referencing and positioning
Week10	Data Visualization
Week11	Examines the use of GIS and predictive modeling for archaeological research in compliance with national historic preservation legislation
Week12	Discusses quantitative and methodological issues such as spatial processes
Week13	GIS and Archaeological Site Location Modeling
Week14	Identifies the challenges of modern modeling applications
Week15	Second exam