האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

GIS Applications in Archaeology - 43621

Last update 13-09-2020

HU Credits: 2

Degree/Cycle: 2nd degree (Master)

Responsible Department: Archaeology & Ancient near East

Academic year: 0

Semester: 2nd Semester

Teaching Languages: English and Hebrew

Campus: Mt. Scopus

Course/Module Coordinator: Dr. Uri Davidovich

Coordinator Email: uri.davidovich@mail.huji.ac.il

Coordinator Office Hours: By appointment

Teaching Staff:

Dr. Uri Davidovich

Course/Module description:

The advanced capabilities of Geographic Information Systems (GIS) to store, question and analyze spatial data have opened new avenues and research tools for spatial and statistical analysis in archaeological research in recent decades. This course deals with the application of GIS in archaeological research.

Course/Module aims:

Practice of basic GIS applications in archeological studies, and acquaintance with various tools for spatial research in archeology using GIS. Most of the course will be devoted to the construction of a GIS project on a site and its catchment, including the collection of archaeological and environmental information, refinement and anchoring of spatial information, creation of vector and raster information layers, and performing initial and complex analyses.

Learning outcomes - On successful completion of this module, students should be able to:

• To plan and build an information system & database for an archaeological research project.
• To collect, anchor and refine environmental and archeological data.
• To produce maps, graphs and diagrams to present research results.

Attendance requirements(%):

100

Teaching arrangement and method of instruction: The course is built as a workshop, and each subject is accompanied by a demonstration of the GIS application/tool and "hands-on" student experience.

Course/Module Content:

Constructing GIS database for an archaeological project; Spatial analyses (including, among others, Distribution & Density maps; Least cost & Path analyses; Buffers and Proximity; Site Catchment Analysis; Visibility analysis); Presenting results and creating complex maps.

Required Reading:

For details see Moodle website of the course: https://moodle2.cs.huji.ac.il/nu20/course/view.php?id&eq;43621

Additional Reading Material:

For details see Moodle website of the course: https://moodle2.cs.huji.ac.il/nu20/course/view.php?id&eq;43621

Course/Module evaluation:

End of year written/oral examination 0 %
Presentation 0 %
Participation in Tutorials 20 %
Project work 40 %
Assignments 40 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information:

A pre-requisite for participation in the course is the course titled "Geo-informatics II" (given under a different name – Introduction of GIS – in previous years), given in the Department of Geography. Only students who have taken this course this year or in previous years can register for the advanced course.