האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

INTRODUCTION TO GIS - 71342

Last update 14-08-2018

HU Credits: *3.5*

Degree/Cycle: *1st degree (Bachelor)*

Responsible Department: *Plant Science in Agriculture*

Academic year: *0*

Semester: *1st Semester*

Teaching Languages: *Hebrew*

Campus: *Rehovot*

Course/Module Coordinator: *Yafit Cohen*

Coordinator Email: *yafitush@volcani.agri.go.il*

Coordinator Office Hours: *by appointment*

Teaching Staff:

Dr. Yafit Cohen
Mr.

Course/Module description:
The power of a GIS comes from the ability to relate different information in a spatial context and to reach a conclusion about this relationship. Most of the information we have about our world contains a location reference: placing that information at some point on the globe. The objective of this course is to study basic concepts of the GIS and to introduce you to variety of its applications especially in the fields of agriculture and environment. In the course the following topics will be studied: Basic concepts in geography,topography,and cartography; GIS as a cartographic tool,database,and as a spatial analysis tool; demonstration of variety of applications in Israel and around the world; spatial data models (raster,and vector); topology; data sources; data input procedures; spatial analysis. In addition skills in designing a GIS project will be learned. The ArcView 8.x. will be used for the lab exercises.

Course/Module aims:
Learning basic concepts of GIS and familiarity with applications of GIS primarily in agriculture and the environment.

Learning outcomes - On successful completion of this module, students should be able to:
** GIS project design skills in the areas of agriculture and the environment.*
** ArcGIS 10 and QGIS software experience*

Attendance requirements(%):
mandatory during exercises

Teaching arrangement and method of instruction: lectures, paper presentation by the students, and exercises

Course/Module Content:
- Basic Concepts in Geography Topography and Cartography
- GIS- the map, database and spatial analysis views
- Data sources and storing into a GIS;
- Spatial data formats (raster and vector)

- Spatial and thematic data analysis
- introduction with studies and application of GIS in agricukture and enviroment

Required Reading:
TBD

Additional Reading Material:

Course/Module evaluation:
End of year written/oral examination 52 %
Presentation 0 %
Participation in Tutorials 0 %
Project work 0 %
Assignments 35 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 13 %
Paper presentation and summary

Additional information: