האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

Urban and regional analysis - GIS applications - 40957

Last update 10-01-2022

HU Credits: 3

Degree/Cycle: 2nd degree (Master)

Responsible Department: Geography

Academic year: 0

Semester: 2nd Semester

Teaching Languages: Hebrew

Campus: Mt. Scopus

Course/Module Coordinator: Daniel Felsenstein

Coordinator Email: daniel.felsenstein@mail.huji.ac.il

Coordinator Office Hours: 12:00-13:00 ,'ג

Teaching Staff:

Prof Daniel Felsenstein,
Mr. keren guy

Course/Module description:
Advanced analytic course showing application of GIS/Excel tools to urban analysis.
Topics covered include:
spatial interaction and gravity models
Urban growth management (the Tiebout model)
Land use planning (the Lowry Model)
Urban networks analysis

Course/Module aims:
Application of GIS platforms to urban analysis.
toolbox of applications to apply to real world situations.

Learning outcomes - On successful completion of this module, students should be able to:
To apply a range of analytic tools
To generate their own GIS applications to problem solving

Attendance requirements(%):
100

Teaching arrangement and method of instruction: Lectures and regular class exercises

Course/Module Content:
1. Introduction
2. ArcGIS refresher
3.Spatial Interaction model (Reilly, Huff)
4. Urban Growth Management (Tiebout model)
5.Land use planning (the Lowry model)
6. Urban networks: shortest path analysis

Required Reading:
see course site on moodle

Additional Reading Material:

see course site on moodle

Course/Module evaluation:

End of year written/oral examination 0 %
Presentation 0 %
Participation in Tutorials 0 %
Project work 0 %
Assignments 100 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information:

none