

The Hebrew University of Jerusalem

Syllabus

FOUNDATIONS OF GEOPHYSICS - 70701

Last update 09-02-2021

HU Credits: 3

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: Geology

Academic year: 0

Semester: 2nd Semester

Teaching Languages: Hebrew

Campus: E. Safra

Course/Module Coordinator: Ron Shaar

Coordinator Email: ron.shaar@mail.huji.ac.il

Coordinator Office Hours: לפי תאום מראש

Teaching Staff:

Prof Ron Shaar,
Ms. Laor May

Course/Module description:

Introduction to geophysical methods: refraction, reflection, magnetism, GPR, heat, gravity. .

Course/Module aims:

Acquaintance with the main methods of geophysics which are available for earth scientists for exploring the sub-surface and the bowels of Earth

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

choose the appropriate geophysical method for geological research, understand the propagation of seismic rays, understand the differences in the types of gravity & magnetic maps, and how heat transfers in the planet.

Attendance requirements(%):

100

Teaching arrangement and method of instruction: A two-hour weekly lecture, reading, and exercises.

Course/Module Content:

seismicity and structure of the Earth, refraction, reflection, magnetic maps, gravity maps, paleomagnetism, heat transfer

Required Reading:

We will provide pdf with some recommended reading.

Additional Reading Material:

Course/Module evaluation:

End of year written/oral examination 70 %

Presentation 0 %

Participation in Tutorials 0 %

Project work 0 %
Assignments 30 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information:

A demonstration of the paleomagnetism, seismic refraction and GPR will be done on 15/6