The Hebrew University of Jerusalem

Syllabus

Mount Sedom diapir: geology and geomorphology - 70332

Last update 04-10-2021

HU Credits: 1

Degree/Cycle: 2nd degree (Master)

Responsible Department: Geology

Academic year: 0

Semester: 2nd Semester

Teaching Languages: English and Hebrew

Campus: E. Safra

Course/Module Coordinator: Prof Amos Frumkin

Coordinator Email: amos.frumkin@mail.huji.ac.il

Coordinator Office Hours: Wednesday 12:00 room 303

Teaching Staff:
Prof Amos Frumkin

Course/Module description:
Geology and geomorphology of salt diapirs, with emphasis on Mt. Sedom

Course/Module aims:
Understand geologic processes specific to evaporites and salt diapirs

Learning outcomes - On successful completion of this module, students should be able to:
Identify and describe features of evaporites and salt diapirs.
Discuss and suggest treating with environmental problems in evaporites and salt diapirs.
Deal with specific structures in saltrock and caprock

Attendance requirements(%):
100 fieldtrip
67% lectures

Teaching arrangement and method of instruction: field trip + pre&post field trip lectures

Course/Module Content:
Lithology, stratigraphy, structure, surficial landforms and geomorphic features of salt. History of Dead Sea Rift lakes and their sediments. Salt tectonics, salt flow, caprock evolution,deformations, dissolution, tectonokarst, sinkholes.

Required Reading:
זק, י. 1988. הליתוסטרטיגרפיה והמבנה של מחדר מלח סדום. החברה הגאולוגית, כנס החברה הגאולוגית עין בוקק, מדריך סיורים, עמ' 200-158
http://www.igs.org.il/contact/ft/1988

Additional Reading Material:
Frumkin, A., 1996. Determining the exposure age of a Karst landscape. Quaternary Research 46, 99–106.

Frumkin, A, 2013. Salt Karst. in: Frumkin, A., volume ed., Shroder, J., ed. in chief, Treatise in Geomorphology, vol. 6, p. 208-424. San Diego, Elsevier, Academic Press.

Weinberger, R., Begin, Z.B., Waldmann, N., Gardosh, M., Baer, G., Frumkin, A., Wdowinski, S., 2006a. Quaternary rise of the Sedom Diapir, Dead Sea Basin, In:Enzel, Y., Agnon, A., Stein, M. (Eds.), New Frontiers in Dead Sea Paleoenvironmental Research. Geological Society of America, Special Paper, vol. 401, pp. 33–51 (Chapter 3).

Course/Module evaluation:

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

Additional information:

Hard field conditions. Good physical condition is needed