

The Hebrew University of Jerusalem

Syllabus

Limnology of the Dead Sea - 70898

Last update 09-10-2018

HU Credits: 3

Degree/Cycle: 2nd degree (Master)

Responsible Department: Geology

Academic year: 0

Semester: 1st Semester

Teaching Languages: Hebrew

Campus: E. Safra

Course/Module Coordinator: Dr. Nadav Lansky

Coordinator Email: [Nadav Lensky <nadavl@gsi.gov.il>](mailto:nadavl@gsi.gov.il)

Coordinator Office Hours:

Teaching Staff:

Dr. Nadav Lansky
Mr. Ziv Mor

Course/Module description:

An advanced course on the limnology of the Dead Sea, with emphasis on the dynamic response of the lake and its surroundings to the continuous level decline – lessons we can gain from the Dead Sea as a modern analog to evaporitic basins. The course covers the following topics: the water, salt and heat budgets; evaporation and heat fluxes across lake surface; the dynamics of thermohaline stratification; the formation of halite deposits; the response of the fluvial system.

Course/Module aims:

To apply the basic principles of limnology to the unique hypersaline Dead Sea and gain insight on the formation of salt deposits.

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

The student will learn basic concepts in limnology and advanced implications to hypersaline lakes; field and laboratory methods; data analysis with emphasis on spatio-temporal variations; insights from in situ observations to interpretation of evaporitic basins and their paleolimnology.

Attendance requirements(%):

no

Teaching arrangement and method of instruction: Weekly - two hours lecture and exercise (10 meetings), presentation of selected topic from the course based on published papers. Field excursion -2 days.

Course/Module Content:

Water, salt and heat balances; evaporation and heat fluxes at lake surface; thermohaline stratification; salt deposition – spatio-temporal variations; dynamics response of the fluvial system.

Required Reading:

Two papers that will be presented by each group

Additional Reading Material:

Will be given along the course.

Course/Module evaluation:

End of year written/oral examination 40 %

Presentation 25 %

Participation in Tutorials 0 %

Project work 0 %

Assignments 10 %

Reports 0 %

Research project 25 %

Quizzes 0 %

Other 0 %

Additional information:

no