

Geology of marine sediments – 2 credits

Course Number: 224.4015

Lecturer: Prof. Revital Bookman

Office Hours: Multipurpose Building – Room 268, tel. 04 8288792, email:
rbookman@univ.haifa.ac.il

Course Type: Lecture

Course Level: MSc/ PhD

Prerequisites: No

Course Description:

This course provides the basic knowledge in Marine Geology with an emphasize on the sedimentary record. The course focuses on classification of marine sediments, their mineralogical and biogenic composition and discusses sediment transport processes and deposition environments. Furthermore, sea water composition and its change along the geological record and basic concepts in biogeochemical cycles will be presented. The course gives tools for understanding sequence stratigraphy and examines paleoclimate information and past sea level changes.

Topics:

1. The hydrological cycle and sea water composition.
2. Nutrients and organic matter in the marine environment.
3. Sediments classification, sources and transport and deposition processes.
4. Sea level change and concepts in Sequence Stratigraphy.
5. Tectonics and Climate change recorded in marine sediments.

Requirements: Multiple choice exam, assignments, and participation.

Grading: Multiple choice exam – 90%, assignments and participation – 10%.

Reading List: The suggested accompanied text book is the Oceanography textbooks by the Open University available in the Haifa University Library. Additional papers will be given along the course.