

Educational cruise – 4 credits

Course Number: 224.4021

Lecturer: Dr. Mor Kanari

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Course Type: Cruise

Course Level: MSc/ PhD

Prerequisites: Knowledge in seismic data processing and interpretation, sediment analysis, oceanography, GIS analysis.

Course Description:

The course is a first-hand experience in applied marine geosciences methods, to experience the full research package. Students practice an A to Z marine applied research: ask the questions, plan the survey, collect the data, process and analyze, create results, draw conclusions, and report their findings. The course includes a 36-hour marine survey, collecting oceanographic, geologic, and geophysical data at sea.

Topics:

1. Get to know relevant equipment and methods for Seafloor mapping (geomorphology), Sub-bottom imaging (geology), Seafloor sampling (sedimentology), and Water column sampling (oceanography; chemistry).
2. Collect and document data (and metadata) at sea.
3. Basic data processing/interpretation and preparation of the cruise report.
4. Build a GIS project to plan the cruise and present the results.
5. A-Z research practice: Study the research area, formulate research questions, select relevant methods for data collection, plan the survey, collect / process / analyze data, cook-up and present results and conclusions.
6. Try some creative thinking, and enjoy working at sea

Grading:

60% participation in meetings + cruise; 35% final report; 5% GIS project.

Reading List:

Varies according to study area and methodologies/equipment used at sea. Relevant gear manuals and papers will be given along the course.