

Ship-based Training for PhD Students of Marine Related Sciences Practical skills in oceanography: equipment and data processing Tallinn, Estonia, July 6-10, 2011

Course Overview

A ship-based training course in oceanography, organized by the Eurofleets project, Doctoral School of Earth Sciences and Ecology, and Marine Systems Institute at Tallinn University of Technology, will be held in Tallinn, Estonia in July 6-10, 2011 onboard the research vessel SALME (<http://www.eurofleets.eu/np4/86.html>).

The course is designed to enable PhD students to acquire the advanced practical skills in oceanography necessary to design and conduct multidisciplinary marine research – to study interrelated physical, chemical and biological processes with a focus on phytoplankton dynamics. Training will include survey design and measurements using autonomous systems and adaptive sampling onboard a research vessel. The study area is a stratified brackish water estuary – the Gulf of Finland (Baltic Sea). The equipment available includes an autonomous buoy profiler deployed in the Gulf, a Ferrybox system installed on a passenger ferry, profiling and towed devices onboard the research vessel, water sampling array, laboratory equipment for treatment and analyses of samples, both onboard the research vessel and in an onshore laboratory.

Prior to the course, access to near real-time data from the study area and recent scientific publications will be given to the successful applicants. The course contains introductory lectures; exercises to design and plan the field measurements taking into account the available near real-time data from autonomous systems; two days of surveys onboard the research vessel (deployment and operation of equipment, sample collection and onboard sample processing, using e.g. FlowCAM and Phyto-PAM, data acquisition and preliminary processing); post-cruise sample analyses in an onshore laboratory; processing, analysis and integration of data; preparation of a study report.

A total of 12 positions are available for PhD students and selection will be based on the information provided in the application form. Please note that the course is funded through the Eurofleets project, the Doctoral School of Earth Sciences and Ecology, and Marine Systems Institute at Tallinn University of Technology. Students will be accommodated onboard the research vessel free of charge. Travel expenses to and from Tallinn will be paid by the students (travel information can be found at: <http://www.tourism.tallinn.ee/eng>).

Applications must be received via e-mail (urmas.lips@phys.sea.ee) or post (Prof. Urmas Lips, Marine Systems Institute, Akadeemia Rd 15a, 12618 Tallinn, Estonia) by **Friday May 27th at 17:00hrs (CET)**. Successful applicants will be notified by **Tuesday 31th May**.

Lecturers, onboard instructors and organizers

Training program will be lead by Prof. Urmas Lips, Marine Systems Institute at Tallinn University of Technology (Estonia). The course organizers, lecturers and onboard instructors will come from Tallinn University of Technology (Estonia), University of Tartu (Estonia), Marine Institute (Ireland), National Institute of Oceanography and Experimental Geophysics (Italy) and Bigelow Laboratory for Ocean Sciences (USA).

Preliminary time-table

First day

Arrival

- 13:00-14:00 First meeting onboard r/v SALME, registration and accommodation, lunch
- 14:00-17:00 Course outline and introductory lectures
- 17:30-19:00 Survey planning
- 19:00... Get-together

Second day

- 08:45-09:00 Safety instruction
- 09:00-18:00 Surveys at sea
- 18:30-19:30 Discussion, next day survey planning

Third day

- 08:30-17:30 Surveys at sea
- 18:00-19:30 Transfer of samples from r/v to on-shore laboratory, discussion

Fourth day

- 09:00-10:00 Tasks for laboratory analyses, data analysis and reporting
- 10:00-16:00 Analyses and group work
- 16:30-18:30 Preparation of study reports
- 19:00... Dinner

Fifth day

- 09:00-12:00 Presentation of study reports
- 12:30-13:30 Final discussion and closing

Departure

Credits: 2 ECTS

For further information on:

Eurofleets please see <http://www.eurofleets.eu>

Doctoral School of Earth Sciences and Ecology please see <http://www.geoeco.ut.ee/687999>

For further training information please contact Prof. Urmas Lips at urmas.lips@phys.sea.ee