

International Atomic Energy Agency

INT7019: Practical Training on Ocean Acidification – From experimental design to data analysis

PROSPECTUS

Title:	Practical Training on Ocean Acidification – From experimental design to data analysis
Place:	The Sven Lovén Centre for Marine Infrastructure – Kristineberg, Fiskebäckskil, Sweden
Date:	4-22 June 2018
Deadline for nominations:	13 April 2018
Organizers:	International Atomic Energy Agency in cooperation with the University of Gothenburg
Language:	The language of instruction will be English
Participation:	The course is open to 12 trainees from Member States participating in the IAEA Technical Cooperation project INT7019. Priority will be given to early-career scientists who have begun to work in the ocean acidification area. Experts in other fields interested in becoming involved in ocean acidification studies would also be welcome, space permitting.
Target countries:	IAEA INT7019 Participating MS
Purpose of the course:	The aim of this course is to provide the full set of tools required to design and perform a complete laboratory experiment pertaining to study impacts of ocean acidification on selected marine organisms, as well as to analyze and prepare the data and results obtained for publication. The extended course format (3 w) will allow the time necessary to obtain in-depth understanding of experimental design, techniques, trouble-shooting, and opportunities for lasting collaboration with fellow course participants. The aim is for the data collected during the course to be published in an international scientific journal. Going beyond more “traditional” training courses and inspired by lessons learned from previous courses, the intent is to offer a much more targeted, practical and participatory training.
Participants’ qualifications and experience:	The participants should have a university degree in marine biology, oceanography or a related scientific field, and should be currently involved in, or planning to set up, ocean acidification studies. Participants should be actively involved in laboratory studies at their home institute or organization. Participation in a previous basic ocean acidification training is a plus. Participants will be required to fill in a questionnaire assessing their current knowledge, capacities and needs, and this information will be used to fine-tune the course content to offer a course tailored to participants’ current level, research interests, and future potential. This course is intermediate level and best suited for IAEA INT `Categories 2 and 3` (see https://www.dropbox.com/sh/fbejhqk3jym0lkl/AACJ438uzSNHe9A08rgurhpfa?

dl=0), although may be beneficial also to other Categories, depending on individual cases.

Nature of the course:

The training course will be organized around a joint biological experiment. The first week will consist of general lectures on chemistry and biology, as well as experimental design. A full-scale experiment will be set up with practical trainings on how to control and measure carbonate chemistry (pH and alkalinity). The second week will focus on biological culturing (phytoplankton, animals), measurements of basic biological parameters (growth, survival) and troubleshooting. Advanced biological parameters (e.g. feeding, respiration, pHe/pHi) measurements, data analysis (chemical and biological) and synthesis will be covered during the third week. The course will be highly flexible to focus on participants' requests and needs. For example, model organisms will be selected taking into account experience and scientific interests of the participants.

Course Director Ass. Prof. Sam Dupont

Application procedure:

A maximum of 12 Applicants will be selected on the base of a short CV and a letter developing their future planned activities related to biological responses to ocean acidification as well as their needs and motivation to attend the course.

Administrative and financial arrangements: