Geophysical Research Abstracts
Vol. 16, EGU2014-14586, 2014
EGU General Assembly 2014

A European Collaborative EO Summer School for the Education of Undergraduate and Masters Level Students- FORMAT-EO

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An Erasmus intensive programme has been successfully funded to run a Europe-lead summer school in Earth Observation for the years 2013 and 2014. The summer school, FORMAT-EO (FORmation of Multi-disciplinary Approaches to Training in Earth Observation) has been proposed and implemented by a consortium of eight partner institutions from five European countries. The consortium was facilitated through the NEREUS network.

In the summer of 2013, 21 students from seven European institutions took part in the two week intensive course which involved a total of 28 teachers from six institutions. Students were from a variety of backgrounds including aeronautical engineering MSc students and PhD students in the areas of marine biology, earthquake engineering and measurement of trace gases in the atmosphere.

The aims of FORMAT-EO were:

1. To give students exposure to the wider applications of Earth Observation
2. To highlight the interdisciplinary, collaborative and international nature of Earth Observation
3. To offer an intensive course to better equip students with specialist skills required for a career in this field
4. To provide expert advice on the development of careers in the EO market

Partners were invited not only to recruit students for the course but to also teach at the school based on their specific area of expertise. This approach to the teaching provided a timetable which was wide-ranging and covered topics from EU policies for Earth Observation to fire detection from space and an introduction to interaction between radiation and matter.

An important aspect of the course was the interactive nature of much of the teaching. A topic was introduced to the students through a lecture followed by an interactive tutorial providing students with hands-on experience of working with EO data and specialist software. The final days of the summer school were spent on group project work which required students to use all of the skills that they acquired during the course to challenge a specific EO topic. Students were assessed based on individual and group presentations of the results of their project work.

The impact of the summer school was assessed through pre and post-evaluations. The evaluation form was designed to grade students understanding of subjects taught on the course. For all topics the average increase in understanding for students who were assessed was between 30 and 50%.

Overall the course was deemed to be a success, with funding secured for a second year and students all demonstrating an increased understanding and enthusiasm for the topics covered. It is hoped that this course will provide a first step towards the construction of a common European curriculum in Earth Observation in the near future.

In this presentation the pedagogical approaches, learning outcomes and innovation of the course will be discussed alongside an evaluation of the merits of the course.