Course
Specifications
Valid as from the academic year 2015-2016

Data and Information Management (C002477)

Course

Course size (nominal values; actual values may depend on programme)
Credits 3.0 Study time 90 h Contact hrs 30.0 h

Course offerings and teaching methods in academic year 2019-2020
A (semester 1) English lecture 15.0 h

seminar: practical PC room classes 15.0 h

Lecturers in academic year 2019-2020
Deprez, Tim WE11 lecturer-in-charge

Offered in the following programmes in 2019-2020 crdts offering
Master of Science in Marine and Lacustrine Science and Management 3 A

Teaching languages
English

Keywords
Information management, data management, data formats, metadata, datasets, derived products, relational databases

Position of the course
To discuss the importance of data- and information management for marine and lacustrine sciences. To give an overview of state-of-the-art principles, practices and networks in a global context. To illustrate the relevance of good data and information management for the production of derived products for the support of research and policy. To get the basic understanding of designing a proper relational database for supporting a research project.

Contents
Introduction to data- and information management in marine and lacustrine sciences. The participants get an overview of what data- and information management implies, and an introduction to some tools which are often used for information management. The topics handled in this course are:
1 Data and information in global oceanography today (Collecting data, Research oceanography, Survey oceanography, Operational oceanography, International programs, agencies & organizations)
2 Information technology & scientific communication (Computer technologies, Metadata, Information seeking in electronic environments, Information & technology programs & organizations)
3 Information management principles (concepts, relational databases, data centres)
4 From research proposal to derived products (data policies, data protocols, databases, distribution of data),
5 Hands on exercises (both in IODE project office, MSaccess and database design at University)

Initial competences
Basic biology, geology, chemistry, physics basic computing skills

Final competences
1 At the end of the course, the participant should have insight in the relevance of data- and information management.
2 He/she should be able to find and integrate information and data from several sources, and use this to generate reports, both for the benefit of policy makers and for other scientists.
Conditions for credit contract
  Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract
  This course unit cannot be taken via an exam contract

Teaching methods
  Lecture, seminar: practical PC room classes

Extra information on the teaching methods
  Lectures, practical exercises and discussions; visit to the IOC Project Office for IODE in Ostend

Learning materials and price
  Cost: 0.0 EUR Syllabus, lecture notes, handouts of ppt files, articles.

References
  Recommended literature is available in OceanPortal's digital library at http://ioc.unesco.org/oceanteacher/oceanteacher2/DigitalLibrary.htm

Course content-related study coaching
  Teacher is available for questions, and help, extra material will be posted online.

Evaluation methods
  end-of-term evaluation

Examination methods in case of periodic evaluation during the first examination period
  Written examination with open questions, oral examination, assignment

Examination methods in case of periodic evaluation during the second examination period
  Written examination with open questions, oral examination, assignment

Examination methods in case of permanent evaluation

Possibilities of retake in case of permanent evaluation
  not applicable

Extra information on the examination methods
  Summary report by each student, to be discussed at examination. Short written exam with possibility of oral defence.

Calculation of the examination mark