Course Specifications
Valid as from the academic year 2015-2016

Data and Information Management (C002477)

Course

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

Offered in the following programmes in 2019-2020

Master of Science in Marine and Lacustrine Science and Management

3 credits

Course offerings and teaching methods in academic year 2019-2020

A (semester 1)

<table>
<thead>
<tr>
<th>English</th>
<th>lecture</th>
<th>15.0 h</th>
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<tbody>
<tr>
<td></td>
<td>seminar: practical PC room classes</td>
<td>15.0 h</td>
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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.

Course size

<table>
<thead>
<tr>
<th>Credits</th>
<th>Study time</th>
<th>Contact hrs</th>
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| 3.0     | 90 h       | 30.0 h

Teaching languages

English

Keywords

Position of the course

Contents

Initial competences

Final competences

(Approved)
Access to this course unit via a credit contract is determined after successful competences assessment.

This course unit cannot be taken via an exam contract.

Lecture, seminar: practical PC room classes.

Cost: 0.0 EUR Syllabus, lecture notes, handouts of ppt files, articles.

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

Written examination with open questions, oral examination, assignment.

Written examination with open questions, oral examination, assignment.

Written examination with open questions, oral examination, assignment.

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

Calculation of the examination mark.

(Approved)