GHENT UNIVERSITY

Course Specifications

Valid in the academic year 2023-2024

Data and Information Management (C002477)

Course size *(nominal values; actual values may depend on programme)*

Credits 3.0 **Study time 90 h**

Course offerings in academic year 2023-2024

Lecturers in academic year 2023-2024

Deprez, Tim	WE11	lecturer-in-charge

Offered in the following programmes in 2023-2024	**crdts**	**offering**

Teaching languages

English

Keywords

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

Position of the course

To discuss the importance of data- and information manangement 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

Seminar, Lecture

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.

Assessment moments

end-of-term assessment

Examination methods in case of periodic assessment during the first examination period

Oral assessment, Written assessment with open-ended questions, Assignment

Examination methods in case of periodic assessment during the second examination period

Oral assessment, Written assessment with open-ended questions, Assignment

Examination methods in case of permanent assessment

Possibilities of retake in case of permanent assessment

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