Advanced Sedimentology (C003816)

Due to Covid 19, the education and evaluation methods may vary from the information displayed in the schedules and course details. Any changes will be communicated on Ufora.

Lecturers in academic year 2021-2022
Van Daele, Maarten
WE13 lecturer-in-charge
Meyer, Inka
WE13 co-lecturer

Course offerings and teaching methods in academic year 2021-2022
A (semester 1) English Gent
group work 15.0 h
practicum 15.0 h
lecture 25.0 h
seminar 12.5 h

Offered in the following programmes in 2021-2022
Master of Science in Marine and Lacustrine Science and Management

Teaching languages
English

Keywords
Sediment sampling equipment, analytical techniques in sedimentology, sedimentological case-studies

Position of the course
This course is focused on the use of sediments for research purposes. It builds on the general principles of sediment production, transport, and deposition that were introduced at the Bachelor level.

Contents
Sediment sampling techniques, in-situ sediment monitoring instruments, coring equipment.
Analytical techniques in sedimentology.
Core logging instrumentation: Multi-sensor core loggers, XRF and CT core scanners.
Interpretation of multi-proxy sediment records, including age-depth modeling.
Recent advances in sedimentology.
Case-studies (seminars given by guest speakers).

Initial competences
The student knows the basic concepts of sedimentology and stratigraphy, such as sediment production, transport and deposition. He/she knows the main depositional environments.

Final competences
1 The student can design a research project based on sediments and sedimentary archives.
2 He/she is able to select the most appropriate techniques to analyze sediments for specific purposes.
3 He/she can combine and interpret data obtained using several independent techniques.

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

(Approved)
**Teaching methods**
- Group work, lecture, practicum, seminar

**Learning materials and price**
- Course notes, hand-outs, and scientific articles available on Ufora.

**References**
- Specific scientific articles given during the course.

**Course content-related study coaching**
- Discussion of problems and questions during and after the lectures and seminars. Continued support by teaching assistants during the practical exercises.

**Evaluation methods**
- end-of-term evaluation

**Examination methods in case of periodic evaluation during the first examination period**
- Written examination, report

**Examination methods in case of periodic evaluation during the second examination period**
- Written examination, report

**Examination methods in case of permanent evaluation**
- Written examination, report

**Possibilities of retake in case of permanent evaluation**
- not applicable

**Calculation of the examination mark**
- Theoretical exam, including conception, presentation, and discussion of sediment-based mock research project: 75%
- Group project report: 25%