

Integrated Limnological Field Course (C003355)

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

Credits 3.0 **Study time 90 h**

Course offerings and teaching methods in academic year 2024-2025

A (semester 2)	English	Gent	excursion group work lecture
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Lecturers in academic year 2024-2025

N., N.		lecturer-in-charge
Verschuren, Dirk	WE11	co-lecturer
Vyverman, Wim	WE11	co-lecturer

Offered in the following programmes in 2024-2025

Master of Science in Marine and Lacustrine Science and Management	crdts	offering
	3	A

Teaching languages

English

Keywords

Field measurements, observations, data collection (on lakes), lab analyses

Position of the course

The main objective is to convey the philosophy behind and the main practices for conducting field work on lakes, with practical hands-on introduction to the main field techniques, experiments, data acquisition and processing. The final aim is to provide the students with an insight in ecological, geological, physical, and chemical processes in lakes by means of observations, analysis and experiments in the field and in the lab.

This field course usually takes place during the last week of June.

Due to logistic and housing constraints max. 14 students can be enrolled in this course.

Students will be selected (if required) based on a motivation letter to be submitted in early spring.

Contents

An introduction will be given on the environmental, geological and morphological characteristics and history. Examples will be shown from exploration and measurements in the field in order to identify the specific environment. The students will go in the field to perform observations, to conduct field experiments and to collect field samples. Subsequently, the collected data will be analysed in the lab and interpreted in small groups, through which the different aspects of biosphere or geosphere processes in lakes will be studied and illustrated.

Initial competences

Insight in the most important limnological processes. Basis knowledge in physical and chemical limnology, ecology and geology.

Final competences

- 1 Be able to set up an optimal sampling strategy and experimental design to investigate the geological, ecological and biological status of a lake system and to carry out research autonomously.
- 2 Be able to collect and analyse geological samples from lakes, integrating geological time, evolution of climate through time and interactions between geosphere and biosphere.
- 3 Be able to identify fauna and flora based on identification guides.
- 4 Be able to analyse the data obtained with the appropriate tools (e.g. statistical analysis) and

critically discuss and report the results (both written and oral).

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

Group work, Excursion, Lecture

Extra information on the teaching methods

Introductory lecture, field work, lab analysis and data processing in group.

Study material

None

References

Course material (lecture slides, recent scientific literature) is provided by the lecturers (either in printed or electronic form).

Course content-related study coaching

Guidance in the field and the lab

Assessment moments

continuous assessment

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

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

Examination methods in case of permanent assessment

Participation, Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Extra information on the examination methods

- Students who eschew the non-periodical evaluation cannot pass for the course.
- For the second examination period, the student will be given a special assignment on topics discussed during the field trips.

Calculation of the examination mark

Evaluation of individual or team report + presentation of the report at the end of the field trip;
Evaluation of motivation and degree of participation during the field trip.