GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2024-2025

Philosophy of Mathematics and Natural Sciences (A005609)

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

Credits 9.0 **Study time 270 h**

Course offerings in academic year 2026-2027

A (Year)	English	Gent

Lecturers in academic year 2026-2027

Van Kerkhove, Bart	LWO1	lecturer-in-charge
Weber, Erik	LWO1	co-lecturer

Offered in the following programmes in 2026-2027	**crdts**	**offering**
Research Master of Arts in Philosophy	9	A

Teaching languages

English

Keywords

Mathematical practice, explanation, causation, proof, scientific representation

Position of the course

This course is one of the eighteen research seminars that constitute the core of the master programme. Depending on initial qualifications, students enrol for three or five such research seminars.

Contents

The lecturers' expertise allows students to conduct research into philosophical questions regarding various aspects of mathematical practice (including (visual) evidence, the role of diagrams, explanation, aesthetic aspects and argumentation). Philosophical questions on explanation and causality in physics and genetics can also be chosen as research topics.
For students enrolled in the research master detailed infromation is available on the Ufora-site 'ReMa Philosophy General Information'.

Initial competences

Knowledge of philosophy of science at intermediate level
Competent in philosophical writing and argumentation

Final competences

1 Ability to formulate original and innovative research problems based on the duly founded insight into the internationally recognised state-of-the-art in the philosophy of mathematics and the natural sciences.
2 Ability to work out original solutions to the selected research problems, and argue for them clearly and convincingly.
3 Ability to deepen one's knowledge of the philosophy of mathematics and the natural sciences independently.
4 Ability to report on research orally (for academic peers) in a clearly-understood manner.
5 Having a work attitude that allows to function in research teams and that guarantees integrity of the research.

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, Independent work

Study material

None

References

Course content-related study coaching

Individual help is offered by the lecturers.

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

Skills test, Participation, Assignment

Possibilities of retake in case of permanent assessment

not applicable

Extra information on the examination methods

Oral presentation of research results, participation in discussions during seminars.
Paper assignments, written research reports.

Calculation of the examination mark

Presentation & participation: 40%
Paper: 60%

Facilities for Working Students

None.