

History of Science (A002226)

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

Credits 5.0 **Study time 150 h**

Course offerings and teaching methods in academic year 2025-2026

A (semester 2)	Dutch	Gent	independent work lecture
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Lecturers in academic year 2025-2026

De Kockere, Jana	LW01	staff member
Beck, Pieter	LW01	lecturer-in-charge

Offered in the following programmes in 2025-2026

	crdts	offering
Master of Science in Teaching in Arts and Humanities (main subject Philosophy)	5	A
Master of Arts in Historical Linguistics and Literature	5	A
Master of Arts in Philosophy	5	A

Teaching languages

Dutch

Keywords

Scientific Revolution; historiography of science; modernity; history of science from a global perspective

Position of the course

This course offers a specialized introduction to the Scientific Revolution of the sixteenth and seventeenth century.

Contents

We start with a historiographic assessment of the idea that something like a scientific revolution took place. We introduce the institutionalization of science during the nineteenth century and the ensuing reflections on this process that led to the origin of the discipline of history of science. A central place is occupied by the idea that science is an essential characteristic of "modernity". In doing so, we will consider both the temporal and spatial-cultural rupture associated with the idea of "modernity" and the historiographical questions it raises. Based on selections from primary texts we discuss the evolutions within natural philosophical thinking in the sixteenth and seventeenth centuries. We attempt to understand the transformations in ideals of knowledge by correlating them to the changing social context. We look at a number of concrete case studies to discuss themes such as debates about the role of mathematics in natural philosophy in relation to experiments, the increased importance of research as a collective activity, the relationship between science and religion, the changing role of the university as an institution of knowledge, In addition, we will look at the meta-level how these transformations were analyzed and understood in different ways in the discipline of the history of science. In doing so, we will also historicize the emergence of history of science as a discipline itself.

In conclusion, each student gives a presentation on a freely chosen primary text from the scientific revolution.

Initial competences

Preferably a basic knowledge of the history of philosophy in the early modern period.

Final competences

- 1 Having knowledge of the most important developments in the Scientific Revolution.
- 2 Having insight in the relation between the Scientific Revolution and the changing social context.
- 3 Being able to assess the importance of historiographic reflections for attempts at writing the history of science.
- 4 Being able to situate the emergence of history of science as a discipline in a global, cross-cultural context.
- 5 Being able to formulate the start of a critical assessment of the situatedness of the historiography of science, both temporally and spatio-culturally
- 6 Being able to independently analyse primary sources.
- 7 Being able to give a clear oral presentation about independently carried out 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

Lecture, Independent work, Peer teaching

Extra information on the teaching methods

- Each week we discuss fragments from primary and/or secondary texts read at home.
- In preparation of the exam presentation all students elaborate a brief research question and comment on two research questions of their fellow students.
- For the exam all students give a presentation in which they independently analyse a primary text.

Study material

Type: Handbook

Name: Revolutionizing the Sciences

Indicative price: € 30

Optional: no

Language : English

Author : Peter Dear

ISBN : 978-0-23054-516-8

Online Available : No

Available in the Library : Yes

Available through Student Association : Yes

References

Course content-related study coaching

On appointment; by the lecturer.

Assessment moments

end-of-term and continuous assessment

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

Participation, Presentation, Assignment

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

Oral assessment, Assignment

Examination methods in case of permanent assessment

Participation

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Calculation of the examination mark

Periodic assessment: presentation (70%), class discussions (20%).

Permanent assessment: participation (10%) (finishing research question + comments)

Facilities for Working Students

1. Possible exemption from educational activities requiring student attendance.
 2. Possible rescheduling of the examination to a different time in the same academic year
 3. Alternative time for feedback is possible
- For more information concerning flexible learning: contact the monitoring service of the faculty of Arts and philosophy