

Nematodes as Model Organisms (C004358)

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 2025-2026

A (semester 2)	English	Gent	seminar practical lecture
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Lecturers in academic year 2025-2026

Braeckman, Bart	WE11	lecturer-in-charge
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Offered in the following programmes in 2025-2026

International Master of Science in Agro- and Environmental Nematology	crdts	offering
	3	A

Teaching languages

English

Keywords

Model systems, Caenorhabditis elegans, techniques, bio-informatics

Position of the course

This course is part of the common general courses of the 1st year. In this course we emphasize on the important role of nematodes as simple multicellular models to study complex biological functions. We will also focus on some milestones in biological research that were carried out on nematode models.

Contents

Nematode models: an introduction Caenorhabditis elegans / History of a supermodel / Important techniques developed used in C. elegans to study biological processes / C. elegans in research / WormBase and other databases: the digital nematodesematodes

Initial competences

Preliminary knowledge of general biology is necessary. Basic Internet skills are a plus but not required.

Final competences

- 1 The student understands the importance of nematode models to solve many general biological questions.
- 2 The student appreciates the value of detailed molecular analyses in these models used to understand basic biological phenomena.
- 3 The student is able to carry out basic searches in WormBase and related databases and is aware of their possibilities.
- 4 The student is able to perform laboratory experiments and can analyse, interpret, summarize and report the obtained data.
- 5 The student understands the diversity and importance of current technologies and techniques required for molecular analyses and can conceptualize an experiment.

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, Practical

Extra information on the teaching methods

Guided exercises in computer class (WormBase)

Practicals: experiments using *C. elegans*

Study material

Type: Syllabus

Name: Nematodes as Model Organisms: slides

Indicative price: € 15

Optional: no

Available on Ufora : No

Online Available : No

Available in the Library : No

Available through Student Association : No

Additional information: Available via the secretariat of the Nematology program.

Type: Syllabus

Name: Nematodes as Model Organisms: text

Indicative price: € 7

Optional: no

Available on Ufora : No

Online Available : No

Available in the Library : No

Available through Student Association : No

Additional information: Available via the secretariat of the Nematology program.

Type: Slides

Name: Workshop databases

Indicative price: Free or paid by faculty

Optional: no

Available on Ufora : Yes

Online Available : No

Available in the Library : No

Available through Student Association : No

References

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Course content-related study coaching

Questions concerning this course can be asked anytime at the offices of the teaching staff or submitted to the staff by using the Ufora website.

Assessment moments

end-of-term and continuous assessment

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

Oral assessment, Written assessment

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

Oral assessment, Written assessment

Examination methods in case of permanent assessment

Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is not possible

Extra information on the examination methods

Oral exam with written preparation.

The permanent evaluation is a groupsreport of the 2 practicals.

Calculation of the examination mark

- Period-bound examination (80%)
- non-periodical evaluation (20%).

