

Scientific reasoning and communication (G000698)

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.

Course size *(nominal values; actual values may depend on programme)*
Credits 3.0 **Study time** 90 h **Contact hrs** 50.0 h

Course offerings and teaching methods in academic year 2020-2021

A (year)	Dutch	Gent	group work	35.0 h
			lecture	15.0 h

Lecturers in academic year 2020-2021

Van Immerseel, Filip	DIO5	lecturer-in-charge
Decostere, Annemie	DIO3	co-lecturer
Favoreel, Herman	DIO4	co-lecturer
Geldhof, Peter	DIO4	co-lecturer
Sanders, Niek	DIO7	co-lecturer

Offered in the following programmes in 2020-2021

	crdts	offering
Master of Veterinary Medicine in Veterinary Medicine (main subject Companion Animals)	3	A
Master of Veterinary Medicine in Veterinary Medicine (main subject Horse)	3	A
Master of Veterinary Medicine in Veterinary Medicine (main subject Pig, Poultry and Rabbit)	3	A
Master of Veterinary Medicine in Veterinary Medicine (main subject Research)	3	A
Master of Veterinary Medicine in Veterinary Medicine (main subject Ruminants)	3	A

Teaching languages

Dutch

Keywords

Scientific publishing, report writing, oral presentations, scientific discussions, project proposal writing and defending

Position of the course

This course aims to make the student familiar with (i) writing, analysing and interpretation of scientific manuscripts; (ii) discussing a scientific research topics and (iii) writing and orally presenting/defending a scientific research proposal

Contents

In this course

- (i) the students are attending some lectures on scientific thinking, writing of a scientific manuscript and a project proposal, interpretation of qualitative parameters of scientific journals, interpretations of scientific papers and related topics.
- (ii) the students study a scientific manuscript chosen from a number of manuscripts and learn to interpret the results and put these data in a broad context
- (iii) the students write a research proposal with follow-up research on the chosen manuscript (and related papers)
- (iv) the students orally present the project proposal and discuss this with the lecturers

In addition, some interactive lectures are foreseen in which about three lecturers with experience in research in different environments (industry, academic, governmental) explain what is the aim of research in their specific environment, with examples. A discussion with the students will be guided.

Initial competences

Basic knowledge regarding scientific literature database searches is essential. This course connects with the end terms of part I of the Master course (2nd Ma Veterinary Medicine) Subscribing for this course is only possible after obtaining a bachelor degree in veterinary medicine or when enrolled in a GIT trajectory in veterinary medicine between the third bachelor and first master year.

For students who are not currently enrolled in the UGent veterinary medicine studies is subscription for this course only possible if they comply with the majority of final competencies of the bachelor in veterinary medicine degree and after approval of the curriculum commission.

Final competences

- 1 To be able to analyze and interpret scientific publications (2.1 and 3.2)
- 2 Having insights and knowledge in the process of writing a paper in a scientific journal (2.1 and 4.1)
- 3 Having knowledge on quality parameters of scientific journals, and finding these parameters in databases (2.5 and 3.2)
- 4 Having knowledge of methods in writing scientific project proposals (2.1, 2.2, 2.3, 2.4 and 3.3)
- 5 Having knowledge on the methodology of presenting slides and answering questions regarding a scientific topic, for an audience (3.1, 4.1, 4.2 and 4.3)
- 6 To be comfortable with giving oral scientific presentations (4.2)
- 7 Contribution to interdisciplinary competences: having a critical scientific way of thinking when designing experiments, and writing up scientific papers and project proposals (2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 3.4, 4.1 and 4.2)
- 8 Contribution to interdisciplinary competences: be experienced in giving presentations for an audience, including replying to scientific questions **(3.1, 4.1, 4.2 and 4.3)**

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, lecture

Extra information on the teaching methods

Lectures, group discussions, feedback moments

The course uses a limited number of lectures in which the students are made familiar with the analysis and interpretation of scientific manuscripts and the writing of a research proposal. Tasks will be made by the students and discussed in the lectures. An oral presentation in which the project proposal is explained will be followed by a discussion with the students. Some individual feedback moments will be foreseen to guide the student in the writing of the project proposal.

Learning materials and price

Powerpointslides, books

References

Course content-related study coaching

A formal tutoring is foreseen. Personal contacts with the lecturer will be organized to discuss and prepare the project proposal and the oral presentation.

Evaluation methods

continuous assessment

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

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

Examination methods in case of permanent evaluation

Oral examination, participation, assignment, job performance assessment, peer assessment

Possibilities of retake in case of permanent evaluation

examination during the second examination period is possible

Extra information on the examination methods

Evaluation of the written research proposal, the oral presentation, and the scientific discussion

Permanent evaluation by scoring the effort and quality of the contributions in the lectures, feedback moments and group discussions. Tasks made in the lectures are scored.

Participation in the oral presentation(s) is obligatory. Students withdrawing from the evaluation will fail.

Calculation of the examination mark

permanent evaluation (efforts during lectures and quality of tasks, 50%) and quotation of the oral presentation/defence and the content of the written project proposal (50%)