

# Course Specifications

Valid in the academic year 2024-2025

# Reference Internship: Sciences (H002170)

Course size	(nominal values; actual valu	ies may depend on prog	ramme)			
Credits 3.0	Study time 90 h					
Course offerings and	teaching methods in academic	year 2024-2025				
A (Year)	Dutch	Gent	W	ork placement		
			se	minar		
			De	er teaching		
			nr	actical		
				lecture		
			ie			
Lecturers in academic	: year 2024-2025					
Strubbe, Katrien WEC			WE06	lecturer-in-charge		
Adriaens, Domin	ique		WE11	co-lecturer		
Coolsaet, Kris			WE02	co-lecturer		
Cottenier, Stefaa	IN		TW08	co-lecturer		
Smet, Philippe			WE04	co-lecturer		
Van de Weghe, N	lico		WE12	co-lecturer		
Van Maldeghem	, Hendrik		WE02	co-lecturer		
Offered in the followi	ing programmes in 2024-2025			critts	offerina	
Bachelor of Science in Biochemistry and Biotechnology				3	Δ	
Bachelor of Scien	nce in Biology	lotogy		3	Λ	
Bachelor of Science in Chemistry			z	л Л		
Bachelor of Science in Computer Science			z	A A		
Bachelor of Science in Computer Science			3 7	A A		
Bachelor of Science in Geology			5	A		
Bachelor of Science in Methometics			2	A		
Bachelor of Science in Mathematics				5	A	
Bachelor of Science in Physics and Astronomy				5	A	
Linking Course Master of Science in Biochemistry and Biotechnology				3	Α	
Preparatory Course to Master of Science in Teaching				3	A	
Master of Science in Teaching in Science and Technology (abridged programme)(main subject Riesbamistry and Rietechnology)				3	А	
Master of Science in Teaching in Science and Technology (abridged programme)(main				3	Δ	
subject Biology)				J		
Master of Science in Teaching in Science and Technology (abridged programme)(main				3	Α	
subject Chemist	ry)			_	_	
Master of Scienc	e in Teaching in Science and Tech	inology (abridged progra	amme)(main	3	А	
SUDJECT COMPUTE Master of Science	e in Teaching in Science and Tech	nology (abridged progr	amme)(main	3	Δ	
subject Geography and Geomatics)				5	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
Master of Science in Teaching in Science and Technology (abridged programme)(main				3	А	
subject Geology)						
Master of Science in Teaching in Science and Technology (abridged programme)(main subject Mathematics)				3	А	
Master of Science in Teaching in Science and Technology (abridged programme)(main				3	Δ	
subject Physics a	and Astronomy)			-		
Master of Science in Teaching in Science and Technology (abridged programme)				3	А	

# Teaching languages

Dutch

# Keywords

Learning outcomes, curricula, lesson preparation, microteaching, internship, reflection.

# Position of the course

This course unit contributes to the realization of the basic competencies for teachers and the educational competencies of the educational master program UGent, as included in the program description and concretized in the competence matrix, to be consulted on www.ugent.be/educatievemaster.

# Contents

Common and specific sessions are organized within this training component. The common session will cover the do's and dont's of when creating a lesson preparation. This content is further used in the specific sessions. The specific sessions are determined according to the discipline of the student.

# Subject Didactics of Geography:

- Introduction to attainment levels and curricula, with guided lesson preparation of topics that are part of the observation and microteaching lessons ;

- Microteaching within the science faculty

- Carrying out observation lessons in a class with a member of the subject didactic team/teacher

- Elaboration of a concrete (and limited) lesson plan, linked to the subject of the lesson given;

- Meso-activities with a member of the subject didactic team/teacher that give an idea of the other activities (outside of teaching) associated with the teaching profession

# Subject Didactics of Biology:

 Introduction to attainment targets and curricula, making lesson preparations under supervision of topics that are part of the observation and co-teaching lessons
Carrying out observation lessons in a class with a member of the subject didactic team

- Co-teaching with a member of the teaching team, on at least two topics of varying complexity

- Elaboration of a concrete (and limited) lesson plan, linked to the topic of the lesson given;

- Meso-activities with a member of the subject didactic team that reflect the other activities (other than teaching) associated with the teaching profession;

- Teaching activity in and in cooperation with the Ghent University Museum

(preparation, consultation with didactic team, and co-supervision of a class group); - Conversation with alumni teachers.

# Subject Didactics of Chemistry:

- Introduction to attainment targets and curricula, whereby under supervision lesson preparations are made for topics that are part of the observation and internship activity.

- Lesson preparation
- Microteaching

- Observation on the shop floor, followed by an internship activity.

- Meso-activities that give a picture of the teaching profession in addition to the teaching activities

- Intervision discussions with fellow students, members of the subject teaching team, and teachers in the field

#### Subject Didactics of Physics:

- Introduction to attainment levels and curricula, with supervised lesson preparation of topics that are part of the observation and internship activity

The physics knowledge gained in the domain courses serves as a basis for getting acquainted with a teaching situation in which the student gradually makes the transition from the role of learner to the role of teacher. Topics covered are:

- Observation skills.
- Introduction to subject teaching research in physics.
- Physics final attainment levels and curricula of the various grids.
- Elaboration of a concrete lesson component, including supporting documentation, with emphasis on a demonstration experiment or a practicum.
- Introduction to activating forms of work for physics teaching, and their role in responding to diversity and pluralism.

- Microteaching on this lesson component followed by feedback, reflection and adjustment.

- Conducting this lesson component for a group of learners (e.g., in a class via co-
- teaching, during science or technology fair, in the GUM).
- Collect feedback from the class group, and use it to guide your teaching.
- Intervision discussion and talk with alumni teachers of physics.

#### Competency Didactics of Computer Science:

- Introduction to attainment levels and curricula, preparing lessons under supervision on topics that are part of the observation and co-teaching lessons. This course is primarily an introduction to the practice of teaching computer science in a secondary school in Flanders. The following topics are covered:

- Preparing a lesson
- Locating, reading, interpreting and processing curricula / attainment targets
- General introduction to didactic methods
- Microteaching
- Observation at a secondary school
- Internship activity with students in secondary education, preferably at a school.

# Subject Didactics of Mathematics:

- Introduction to attainment targets and curricula in mathematics, whereby under supervision lesson preparations are made of topics that are part of microteaching and of the observation and co-teaching lessons.

- Elaboration of a concrete (and limited) lesson plan, linked to the topic of the lesson given.

- Microteaching
- Observation internship
- Co-teaching with a member of the subject teaching team on at least two topics of different complexity

- Meso-activities that reflect the other activities (beyond teaching) associated with the teaching profession.

#### Initial competences

It is very strongly recommended that this subject be included at the same time as the corresponding cluster didactics,

#### **Final competences**

- 1 Students have knowledge of the authentic context of the teaching profession, in all its aspects.
- 2 Students come into contact with various forms of education in Flanders
- 3 Students develop a (self) reflective and investigative attitude toward teaching.
- 4 Students develop an awareness of the challenges of the field, coupled with the diversity of the target groups.
- 5 Students can make a conscious decision about the extent to which they wish to enter the teaching profession.

#### 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**

#### Extra information on the teaching methods

Lecture: theory. Work sessions: guided exercises, application of theory. Microteaching: teaching students from the educational master's in science and technology. Internship: observation and teaching on a topic to be determined in an educational setting. Practicum: on performed internship activities. This course assumes the responsible use of generative artificial intelligence (GAI). During the lessons, what this means will be explained

#### Study material

#### Type: Slides

Name: orientatiestage wetenschappen Indicative price: Free or paid by faculty Optional: no Language : Dutch Available on Ufora : Yes Online Available : Yes Available in the Library : No Available through Student Association : No

#### Type: Laptop

Name: orientatiestage wetenschappen Indicative price: € 500 Optional: no Available through Student Association : No Usability and Lifetime within the Course Unit : regularly Usability and Lifetime within the Study Programme : regularly Usability and Lifetime after the Study Programme : regularly

#### Type: Internship

Name: orientatiestage wetenschappen Indicative price: € 20 Optional: yes Additional information: material needed for internship, depends on student (topic of class)

#### References

Are communicated through the electronic learning platform.

# Course content-related study coaching

Held by teacher, teaching didacticians and teaching supervisor, during and after classes and by appointment. Can be done online and on campus, in consultation between student and subject teaching team.

#### 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

Professional practice, Assignment

# Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

### Extra information on the examination methods

Assignments related to guided exercises are evaluated, as are internship activities. The portfolio must be kept, these records are also evaluated. For some activities (micro-teaching, internship) the physical presence of the student is mandatory. all assignments and activities must be performed, possibly they will be made up if the student(s), even if the student is absent with valid reason. Absence from an activity will result in the student being unsuccessful. Two justified absences will be allowed.

#### Calculation of the examination mark

The final score is a weighted average of the scores obtained during the academic year.

Failure to participate in one or more components of the evaluation may result in a fail for the entirety of the course unit. If the final score would be a grade of 8 or more out of 20, it will be reduced to the highest non-delinquent grade (maximum 7/20).

# Facilities for Working Students

Work-study students contact the responsible teacher to discuss their specific situation.