GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2024-2025

Recent Trends in Photonics (E030740)

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

Credits 4.0 **Study time 120 h**

Course offerings and teaching methods in academic year 2025-2026

A (semester 1)	English	Gent	lecture

Lecturers in academic year 2025-2026

Bogaerts, Wim	TWO5	lecturer-in-charge
Clemmen, Stéphane	TWO5	co-lecturer

Offered in the following programmes in 2025-2026	**crdts**	**offering**
Bridging Programme Master of Science in Photonics Engineering	4	A
Master of Science in Photonics Engineering	4	A

Teaching languages

English

Keywords

research, photonics

Position of the course

Through this course the student will be confronted with a number of recent topics in photonics through external and internal experts who present a their research or work (in English). Guest lecturers from companies will expose the student to the application of photonics in industry. Furthermore each student is expected to study one topic oin more detail based on scientific articles and give a seminar in English for his fellow students. During this course, the student will be able to hone his oral and written communication skills.

Contents

- Seminars: Seminars by external speakers, internal speakers and students
- Visits: company visits, conference visits
- Methodologie: creating a bibliography, presentation techniques

Initial competences

Final competences

1 Being able to study a recent trend in photonics in a independent and critical manner.
2 Being able to handle large quantities of new information.
3 Being able to create a reliable reference list.
4 Being able to give an accessible talk for non-specialists.
5 Being able to write a short document summarising a recent trend.

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, Excursion, Lecture, Independent work, Peer teaching

Extra information on the teaching methods

The course is a combimation of lectures/seminars by experts in the field of

photonics, and a self-study (or in small groups) of a 'hot topic' in the field. The students should write an overview paper on this topic, and present a short tutorial lecture for their peers.
During the course we will also participate in a scientific conference.

Study material

Type: Slides

Name: introduction to the course "recent trends in photonics" and topical study
Indicative price: Free or paid by faculty
Optional: no
Language : English
Available on Ufora : Yes
Online Available : No
Available in the Library : No
Available through Student Association : No

References

Course content-related study coaching

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

Participation, Presentation, Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is not possible

Extra information on the examination methods

During semester: graded oral presentation; graded presentation and paper.

Calculation of the examination mark