

Course Specifications

From the academic year 2017-2018 up to and including the

Physics Laboratory 2 (C000983)

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

Credits 6.0 Study time 180 h Contact hrs 60.0 h

Course offerings and teaching methods in academic year 2018-2019

A (semester 2)	Dutch	seminar: coached	7.5 h
		exercises	
		lecture	2.5 h
		practicum	50.0 h

Lecturers in academic year 2018-2019

Van Waeyenberge, Bartel	WE04	lecturer-in-charge
Strijckmans, Koen	WE04	co-lecturer

Offered in the following programmes in 2018-2019

	crdts	offering
Bachelor of Science in Physics and Astronomy	6	A
Preparatory Course Master of Science in Physics and Astronomy	6	A

Teaching languages

Dutch

Keywords

Physics Laboratory

Position of the course

Engaging students in gaining significant experiences with experimental processes. Developing a large range of basic skills and tools of experimental physics and data analysis. Developing collaborative learning skills.

Contents

Lectures: methodology and discussion of ICT tools
Practicum: mixture of conventional and open investigations in the field of sound, electromagnetism, physical optics and non-classical physics. Coached exercises: training in the use of ICT components

Initial competences

Basic knowledge of physics and Introductory Physics Laboratory I

Final competences

- 1 Students must be able to set up a simple experiment.
- 2 Be able to find the relevant theories and models in standard sources and apply them correctly.
- 3 Have a critical and scientific attitude towards taking and processing data.
- 4 Communicate on scientific results in written and oral form.
- 5 Use appropriate ICT components for data processing and written and oral communication.

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, practicum, seminar: coached exercises

Extra information on the teaching methods

Computers are used for collection, analysis and graphical display of data.

Learning materials and price

Syllabus and notes, 0,00 € via Minerva

References

John R. Taylor : An Introduction to Error Analysis - The study of Uncertainties in Physical Measurements, Oxford University Press, ISBN 0-935702-10-5

G.L. Squires : Practical Physics, Cambridge University Press, ISBN 0-52127095-2
Syllabi used for Introductory Physics

Course content-related study coaching

Lecturer and Teaching assistant . Use of Minerva.

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, skills test, peer assessment, report

Possibilities of retake in case of permanent evaluation

examination during the second examination period is possible

Extra information on the examination methods

Continuous evaluation during practical work of experimental and communicative skills.

Evaluation of written and oral reports. Oral questioning

Calculation of the examination mark

The final score will be the calculated average of all assignments.

All lab assignments are mandatory. Students who are absent for the lab exercises (practicum) for a valid reason can make up the missed assignments at a later time. In case the absence is unjustified or the report and/or lab notebook is submitted after the deadline, a zero mark will be given for this assignment.