

- power, coupled circuits
- Maxwell's law, Ampère-Maxwell's law in differential form, Maxwell's equations.

Initial competences

Classical and relativistic kinematics and dynamics, analysis.

Final competences

- 1 To found the core concepts and methods in physics and use them on a fitting level of abstraction.
- 2 To possess and manage thorough knowledge of classical physics and astronomy.
- 3 To get a broad basic and practical knowledge of mathematics useful for solving problems in physics and astronomy.

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

Extra information on the teaching methods

- Theory: lectures with live demonstrations and quizzes to enhance the interactivity
- Excercises: interactive session under guidance of a teaching assistant

Study material

Type: Handbook

Name: Physics, part 2, Electricity, magnetism, optics and modern physics, 5e edition

Indicative price: € 90

Optional: no

Language : Dutch

Author : Douglas C. Giancoli

ISBN : 978-9-04303-872-0

Number of Pages : 940

Available through Student Association : Yes

Type: Syllabus

Name: Additional notes on auxillary fields.

Indicative price: Free or paid by faculty

Optional: no

Language : Dutch

Number of Pages : 12

Available on Ufora : Yes

Type: Slides

Name: Lectures

Indicative price: Free or paid by faculty

Optional: yes

Language : Dutch

Number of Slides : 500

Available on Ufora : Yes

References

Course content-related study coaching

During theory lectures, fundamental concepts are introduced to get insight in this matter. During the exercises, the student's attitudes and aptitudes are developed proper to this course. Interactive feedback is enhanced by Ufora.

Assessment moments

end-of-term assessment

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

Written assessment with multiple-choice questions, Written assessment with open-ended questions

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

Written assessment with multiple-choice questions, Written assessment with open-ended questions

Examination methods in case of permanent assessment

Possibilities of retake in case of permanent assessment

not applicable

Extra information on the examination methods

- Theory : a combination of multiple choice questions to test the fundamental insight and scientific thinking and open questions to test the knowledge; possibility to give oral elucidation
- Exercises : written with open questions

Calculation of the examination mark

- Theory: 50% (35% open questions, 15% MC)
- Exercises: 50%