Course: Applied Physics — credits: 5

Course code	ELVP22APH
Name	Applied Physics
Study year	2025-2026
ECTS credits	5
Language	Dutch, with parts in English, English
Coordinator	J. Bout
Modes of delivery	Problem-based learning
Assessments	Applied Physics - Assignment

Learning outcomes

Advising

The student presents and documents motivated results adhering to engineering standards, draws logical conclusions and provides advice about a (future) product/process/method in the context of electrical engineering.

Content

In this module, straight-forward experiments are drawn up, performed, and critically studied using various topics in the field of physics (see below). The goal is to learn methods of measuring and to have students gain experience with these topics. Furthermore, the choice of sensors and their underlying principles are covered.

The topics that are covered:

- Electricity and electromagnetism (electrostatics, magnetism, induction)
- Energy (power, conversion, efficiency), including various types of energy, such as mechanical energy and heat
- Measuring skills (skills, determining errors, interpretation, presentation)
- Basics of mechanics, rotational mechanics, periodic movements
- Waves

Included in programme(s)

Electrical Engineering Major Mechatronics
Electrical Engineering Major Sensors & Smart Systems
Electrical Engineering Major Energy & Power Electronics

School(s)

Institute of Engineering

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