Course: Physics 1   credits: 2

Course code	ELVP20APHY1
Name	Physics 1
Study year	2020-2021
ECTS credits	2
Language	English
Coordinator	J. Bout

Modes of delivery
Lecture
Practical / Training

Assessments
Physics 1 - Computer, organised by STAD examinations
Physics 1 - Skills test

Learning outcomes

The student can:

- Apply Newton's laws in calculations of movements of objects
- Use Hooke's law to calculate strain and stress for various materials
- Calculate the force on electric charges (Coulombs law), the electric field around and the potential difference between charged objects
- Describe the atomic structure of conductors, semi conductors and insulators and relate it to their macroscopic behavior
- present his/her measurement results using the appropriate units in clear tables and/or graphics gained with the help of spread sheet programmes and interpret them accordingly
- estimate the influence of measurement errors or measurement tools and of tolerance of electrical components used on the results and can present them appropriately in a measurement report
- Describe and perform calculations on mechanical systems by means of kinetic and potential energy

Content

In this course you will acquire the basics
of physics necessary for the remainder of your study.
The difficulty of this course will be perceived differently due to the various backgrounds of the students.

The
course consists of six lectures and four practicals. During the practicals the students will work in
pairs with the assignments. At the end
of the practicals a work sheet will be shown to the teacher, who will decide if the assignments are conducted succesfu

Included in programme(s)

Electrical Engineering Major Sensor Technology
Minor Technology to Create
Exchange Technology to Create (autumn)

School(s)

Institute of Engineering