

Course description

Course abbreviation: KFY/FYPY2
Course name: Physics 2
Academic Year: 2016/2017

Page: 1 / 2

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Department/Unit /	KFY / FYPY2	Academic Year	2016/2017
Title	Physics 2	Type of completion	Exam
Accredited/Credits	Yes, 2 Cred.	Type of completion	Written
Number of hours	Přednáška 2 [Hours/Week]	Course credit prior to	NO
Occ/max	Status A Status B Status C	Counted into average	YES
Summer semester	18 / - 0 / 0 0 / 2	Min. (B+C) students	not determined
Winter semester	0 / - 0 / - 0 / -	Repeated registration	NO
Timetable	Yes	Semester taught	Summer semester
Language of instruction	Czech	Internship duration	0
Substituted course	None		
Preclusive courses	KFY/ELMGP and KFY/VOPTP and KFY/7ELMP and KFY/7OFTP		
Prerequisite	N/A		
Informally recommended courses	N/A		
Courses depending on this Course	N/A		

Course objectives:

Opakování a prohloubení znalostí z nauky o pružných kmitech a vlnách, elektřiny a magnetismu, optiky a atomistiky s ohledem na cílovou skupinu studentů, pro něž je tento předmět určen.

Requirements on student

Input: Secondary knowledge from above-mentioned part physics.

Check out: Establishment knowledge to the extent of educational text physics for biologist 2.

Content

Harmonic oscillation and waves, acoustics
Damped and forced mechanical oscillators
Characteristics of wave
Basic concepts and quantities of physical acoustics

Electricity and magnetism
Basic concepts and quantities from electrostatics
Basic concepts and quantities from electrodynamics
Magnetic field
Electromagnetic induction
Electromagnetic oscillations and waves

Optics
Basic concepts and quantities from geometric optics
Optical apparatus
Basic concepts and quantities from waves and particles optics
Basic concepts and quantities from photometry

Atomics
Basic concepts and quantities from comics structures
Basic concepts and quantities from nuclear physics
radioactivity

<http://artemis.osu.cz:8080/artemis/view.php?ids=10&idr=38&idc=59>

Prerequisites - other information about course preconditions

none

Competences acquired

Development knowledge from areas electricity and magnetism and optics.

Fields of study

Guarantors and lecturers

- **Guarantors:** RNDr. Libuše Švecová, Ph.D.
- **Lecturer:** RNDr. Libuše Švecová, Ph.D.

Literature

- **Basic:** Sklenák, L. *Fyzika pro biology 2. Učební text PrF OU..* Ostrava, 2009.
- **Basic:** *Libovolná, pokud možno nepříliš stará publikace zaměřená na přehled středoškolské fyziky.*
- **Extending:** HORÁK, Z., KRUPKA, I. *Fyzika.* Praha, 1966.
- **Extending:** *INTERNET.*
- **Extending:** POLÁK, J. *Přehled středoškolské matematiky. 6. vyd. : Prometheus.,* Praha, 1997.

Time requirements

Activities	Time requirements for activity [h]
Being present in classes	26
Self-tutoring	20
Preparation for test	8
Consultation of work with the teacher/tutor (incl. electronic)	5
Total:	59

assessment methods

professional knowledge

- Point system
- Written examination

teaching methods

professional knowledge

- Monologic (explanation, lecture, briefing)
- Working with text (coursebook, book)

learning outcomes

professional knowledge - knowledge resulting from the course:

Development knowledge from areas electricity and magnetism and optics.

Course is included in study programmes:

Study Programme	Type of	Form of	Branch	Stage	St. plan v.	Year	Block	Status	R.year	R.
Chemistry	Bachelor	Full-time	Chemistry	1	2012	2016	Povinné předměty	A	1	LS