Study program	Level of the study program		**First cycle**	
	Study program name		**Physics Education**	
Course name	**LABORATORY IN PHYSICS EDUCATION II**			
Course ID	Semester	Course status	ECTS credits	L+E
PED6311	**VI**	**MANDATORY**	**3**	**0+3**
Lecturer				
Aims and intended learning outcomes	The aim of this course is to develop students' knowledge, skills and habits that are important for effective implementation of the experimental method in physics classrooms. Intended learning outcomes: 1. Systematically prepare physics experiments, including a written plan for implementation of the experimental method. 2. Conduct physics experiments and thereby take into account the potential safety risks. 3. Analyse experimental data, identify sources of error and suggest potential ways of improving the experimental setup. 4. Present and discuss the experimental results by using multiple representations and taking into account basic principles of cognitive psychology. 5. Identify, evaluate and design hands-on experiments in physics.			

Course content

Introducing the students with the syllabus.
Electrostatics – part I.
Electrostatics – part II.
Direct current – part I.
Direct current – part II.
Magnetic field.
Electromagnetic induction.
Electric motor. Generator.
Oscillations and waves.
Ray optics – part I.
Ray optics – pat II.

Student workload (hours)		Grading	
Lectures and Exercises	45	Assessment method	Points
Exam preparation	15	Partial exam	40
Assignments	10	Project	10
Other	5	Final exam	50
Total	75		
		Total	100

Literature

1. Vrcelj, A. (n.d.). *Metodički praktikum – elektromagnetizam i optika* (interna skripta). Sarajevo: Prirodno-matematički fakultet.
2. Physics textbooks for primary and secondary school.

žSprott, J. C. (2006). *Physics Demonstrations: A sourcebook for teachers of physics*. University of Wisconsin Press.

Remarks

A passing grade on individual laboratory reports is a prerequisite for getting access to the final exam.