Program	Level of studies		First cycle	
	Program name		**Educational Physics**	
Course name	**PHYSICS LABORATORY I**			
Course ID	Semester	Course status	ECTS credits	L+E
PHY2411	**II**	**MANDATORY**	**4**	**0+3**
Lecturer	**Prof. dr. Elvedin Hasović**			
Aims and intended learning outcomes	The aim of the course is to familiarize students with practical laboratory exercises as well as with phenomena and physical laws in the field of mechanics by handling and using different devices and instruments. Students are expected ● to be able to apply the experimental methodology to the research of physical phenomena in the field of mechanics, ● to be able to master the operation of the apparatus for demonstrating certain mechanical phenomena, ● explain the difference between the obtained and the expected results in the experiments.			

Course content

1. An introduction. The basic instructions for laboratory work.
2. Measurement of length and volume.
3. Measuring the surface.
4. Determining the acceleration of gravity.
5. Determining the initial velocity of horizontally launched ball.
6. Determining the density of solid bodies.
7. Determining the density of liquid.
8. Determining the moment of inertia.
9. Elastic deformations of solid bodies.
10. Determination of viscosity coefficient using a single capillary viscometer - absolute method. Two-capillary viscometer
11. Determination of viscosity coefficient with two-capillary viscometer - absolute and relative method.
12. Standing acoustic waves.
13. Repetition: Measurement for tasks with a large measurement error.
14. Verification of validation exercises.
15. Midterm.

Student workload (hours)		Grading	
Lectures and Exercises	45	Assessment method	Points
Exam preparation	45	Midterm exam	16
Assignments	5	Exercises	44
Other	5	Final exam	40
Total	100		
		Total	100

Literature

1. Praktikum iz mehanike – interna skripta, PMF Sarajevo.
2. G. L. Dimić, M. D. Mitrinović, Metrologija u fizici: viši kurs, Beograd: Građevinska knjiga, 1990.

Remarks