

Study programme: bachelor - Physics Teaching				
Course title: Simple experiments in physics teaching				
Course status: obligatory				
ECTS: 3				
Requirement: none				
Learning objectives Students should gain physics knowledge complemented with simple experiments related to content that will be delivered, and learn the importance of simple experiments for understanding the physical phenomena and processes.				
Learning outcomes Upon completion of the course students should have developed: - <i>General skills:</i> use of literature, creativity in finding solutions and analysis of the given problem. One should know and use scientific terminology. Students should understand the role of simple experiments in the development of creativity and scientific ideas and in implementation of scientific methods in school practice. - <i>Subject-specific skills:</i> ability to demonstrate physical phenomena and laws related to characteristics of air and water, motion, fluid, heat, optics, sound, electricity and electrical current, magnetism.				
Course description <i>Theoretical classes</i> Characteristics of water and air: the atmosphere, atmosphere layers and their characteristics, weather phenomena (cloudiness, fog, rain), optical phenomena in the atmosphere (rainbow, a mirage, the more Sun, halo effect, the northern lights), the theoretical basis of simple explanation of the experiments, approach to simple experiments from the point of a deeper mathematical reasoning of simple demonstrated phenomena. <i>Practical classes</i> "Hands on" experiments: simple experiments - water and air; movement, fluid, heat, optics, sound, electricity and electrical current, magnetism.				
Literature 1. Л.Л. Сикорук, “Физика за малишане”, Москва, Педагогика (1979). 2. Ф. Константиновић, “Учим на огледима 2 и 3”, Техничка књига, Загреб (1972). 3. Душанка Ж. Обадовић, Практикум експерименталних вежби «Једноставни експерименти у настави физике» (скрипта), Универзитет у Новом Саду Природно-математички факултет, (2005/2006)				
Links: Physikalische freihandexperimente, Multimedia Physic Verlag, (1999) , www.multimedia-physik.com http://www.chias.org/www/edu/activities/activity1/activity1.html				
Weekly teaching load				Other:
Lectures: 2	Exercises:	Other forms of teaching: 1	Student research:	