Study program	Level of the study program		**Second cycle**	
	Study program name		**Physics Education**	
Course name	**ACTIVE LEARNING STRATEGIES IN PHYSICS TEACHING**			
Course ID	Semester	Course status	ECTS credits	L+E
PED0411	**I or II**	**ELECTIVE**	**4**	**2+2**
Lecturer				
Aims and intended learning outcomes	The aim of this course is to further develop the students' abilities to use active learning strategies in physics teaching. Intended learning outcomes: 1. Evaluate the pedagogic opportunities of various teaching strategies. 2. Identify the factors that moderate the effectiveness of active learning strategies in physics teaching. 3. Prepare and conduct lessons based on different variants of active learning approaches in physics teaching.			

Course content

Basic principles of cognitive psychology. Model of a teaching environment. Role of the teacher in a teaching environment that promotes active learning. Use of active learning strategies in different teaching formats. Overview of most important active learning approaches in physics teaching. Inquiry-based teaching. Case studies and problem-based learning. Project-based learning. Assessing students' learning outcomes in active learning classrooms.

Student workload (hours)		Grading	
Lectures and Exercises	60	Assessment method	Points
Exam preparation	20	Partial exam	30
Assignments	10	Preparing and conducting lessons	30
Other	10	Final exam	40
Total	100		
		Total	100

Literature

1. Mešić, V. (2015). Uvod u didaktiku fizike. Sarajevo: Prirodno-matematički fakultet.
2. Mattes, W. (2007). *Nastavne metode: 75 kompaktnih pregleda za nastavnike i učenike*. *Zagreb: Naklada Ljevak*.
3. Michael, J.A., & Modell, H.I. (2003). *Active learning in secondary and college science classrooms*. Mahwah, NJ: Lawrence Erlbaum.
4. Bass, J. L., Contant, T. L., & Carin, A. A. (2014). *Teaching Science Through Inquiry and Investigation*. Boston: Pearson.
5. Selected articles from physics education journals.

Remarks