

Study program		Level of studies		Third cycle		
		Title of the study program		Science and mathematics education		
<b>COURSE</b>						
Course title		<b>Modern Physics Education Research</b>				
Course ID	Semester	Course status		ECTS credits	Contact hours	
PED674	II	Elective		10	60	
Lecturers	Lecturer in charge	Prof. dr. Vanes Mešić				
	Other lecturers	Prof. dr. Ivica Aviani, Dr. Nataša Erceg				
Course aims	Becoming familiar with different approaches to physics education research. Developing the ability to review physics education research articles. Developing the academic writing skills within the field of physics education research.					
<b>CONTENT</b>						
#	Teaching units			Contact hours		
				L	E/S	C
	<p>Research related to physics teacher education, professional development and competences.</p> <p>Research related to the affective domain of learning physics.</p> <p>Research related to the cognitive domain of learning physics.</p> <p>Research related to teaching strategies.</p> <p>Research related to models and modeling in physics classrooms.</p> <p>Research about physics problem solving.</p> <p>Research related to communication and social interactions in the physics classroom. Research related to school and classroom climate.</p> <p>Research related to the use of modern educational technologies.</p> <p>Research related to inclusive practices in physics education. Research related to gender differences. Research related to the cultural and societal factors of physics learning. Research about the curriculum and assessment of students' achievement in physics.</p>			30	30	
<b>LITERATURE</b>			<b>ASSESSMENT OF LEARNING</b>			
<ol style="list-style-type: none"> <li>Pinto, R., &amp; Couso, D. (2007). Contributions from Science Education Research. Dordrecht: Springer.</li> <li>Abell, S.K., &amp; Lederman, N.G. (2007). Handbook of Research on Science Education. Mahwah, NJ: Lawrence Erlbaum Associates.</li> <li>Gabel, D.L. (1994). Handbook of research in science teaching and learning. New York: Macmillan.</li> <li>Lester Jr., J.D., &amp; Lester, J.D. (2011). Writing research papers: A complete guide. New York: Pearson.</li> <li>Original scientific articles</li> </ol>			Assessment method	Points	Threshold	
			1.	Review reports	60	33
			2.	Research proposal	40	22
			3.			
			4.			
			Total	100	55	