

## COURSE DESCRIPTION

General information		
Lead instructor	Professor Biljana Mileva Boshkoska Associate Professor Katarina Rojko Professor Vladimr Šimović Associate Professor Leo Mršić	
Course name	<b>CDS-06: Doctoral seminar 2</b>	
Study programme	<b>Computer and Data Science, third cycle Doctoral Study Programme</b>	
Course status	Mandatory	
Year	Third	
Number of credits and mode of delivery	ECTS student workload coefficient	10
	Number of hours (L+P+S)	-/30/270

Course description
<i>1.1. Course goals</i>
<p>The module contributes to the following general and subject-specific competences:</p> <p>General competences:</p> <ul style="list-style-type: none"> <li>- Commitment to professional ethics.</li> <li>- Ability to identify a research problem, analyze it, and offer possible solutions.</li> <li>- Ability to create new knowledge, which represents a contribution to science.</li> <li>- Mastery of standard research methods, procedures and processes in diverse scientific fields.</li> <li>- Familiarity with the notion of quality and strive for professional quality through autonomy, (self-) criticism, (self-) reflection and (self-) evaluation.</li> <li>- Ability to solve concrete research problems in individual scientific fields.</li> <li>- Development of skills and abilities in usage of knowledge in the scientific field of doctoral dissertation.</li> <li>- Ability to innovatively use and combine diverse research methods.</li> <li>- Ability to acquire, interpret, select, evaluate and insert new knowledge.</li> <li>- Ability to present the obtained scientific results in the form of publications in international scientific journals.</li> </ul> <p>Subject-specific competences:</p> <ul style="list-style-type: none"> <li>- Ability to autonomously solve concrete research problems, including the most complex issues.</li> <li>- Ability to operationalize abstract theoretical concepts at the advanced level.</li> </ul>

<ul style="list-style-type: none"> <li>- Formulation of the research design at the most advanced level and the ability to defend it.</li> <li>- Ability to prepare a doctoral dissertation, present it and conduct peer reviews.</li> </ul>		
1.2. Course enrolment requirements		
All obligations from the first year		
1.3. Intended course learning outcomes		
<p>Knowledge and understanding:</p> <p>The student acquires knowledge for:</p> <ul style="list-style-type: none"> <li>- the defense of her/his doctoral dissertation and obtains the comments those present,</li> <li>- critical assessment of draft doctoral dissertations of her/his study colleagues (peers),</li> <li>- considering relevant comments and suggestions from the seminar in the process of finalization doctoral dissertation,</li> <li>- considering advice and comments towards improving the defence talk itself.</li> </ul>		
1.4. Course content		
<p>The seminar is directly related to the final preparation of the doctoral dissertation.</p> <p>The student approaches to the seminar with first draft of the doctoral dissertation, which must include at least the following:</p> <ul style="list-style-type: none"> <li>- clearly formulated research question and/or hypothesis,</li> <li>- presentation of the research methods used,</li> <li>- at least preliminary research results,</li> <li>- at least a preliminary interpretation of the research results in the light of the questions/hypotheses,</li> <li>- grounds and arguments for innovative character of the doctoral dissertation as a novel and relevant contribution to science.</li> </ul> <p>The student is given the opportunity of a rehearsal of his/her defence, which is implemented in the form of a seminar (lecture) in front of the members of the defence committee and peer students. The candidate thus gets comments and feedback towards improving not only the dissertation itself, but also the defence. At the same time, the defence committee can eliminate or clarify possible critiques on the candidate's research work, dissertation, and defence. All participating students present their defence drafts while critically evaluating the others' drafts.</p> <p>The completed draft must serve as a sufficient basis for the preparation of the final text of the doctoral dissertation. If the supervisor considers that the improved draft text does not provide this, the student must repeat the seminar.</p>		
1.5. Modes of delivery (mark the appropriate boxes with an X)	<input checked="" type="checkbox"/> lectures <input type="checkbox"/> seminars and workshops <input checked="" type="checkbox"/> practicals <input type="checkbox"/> remote learning <input type="checkbox"/> field work	<input checked="" type="checkbox"/> independent work <input type="checkbox"/> multimedia and network <input type="checkbox"/> laboratory <input type="checkbox"/> supervision <input type="checkbox"/> other _____
1.6. Student obligations		

<i>1.7. Monitoring student work (mark the appropriate boxes with an X)</i>							
Class attendance		Participation in class		Seminar paper		Experimental work	
Written exam		Oral exam		Essay		Research	
Project		Continuous assessment of knowledge		Student report		Practical work	
Portfolio		Schoolwork		Homework			
<i>1.8. Assessment and evaluation of student work during classes and the final exam</i>							
Type (examination, oral, coursework, project): - Dissertation draft and its presentation, 80% - One peer review, 20%							
<i>1.9. Required readings and number of copies relative to the number of students currently taking the course</i>							
<i>Title</i>				<i>Number of copies</i>		<i>Number of students</i>	
Drafts of doctoral dissertation							
<i>1.10. Supplementary readings</i>							
<i>1.11. Methods of quality monitoring that ensure the acquisition of knowledge, skills and competences.</i>							