

<b>Study program:</b> Information technology		
<b>Type and level of studies:</b> Doctoral Academic Studies		
<b>Course unit:</b> Software Quality		
<b>Teachers in charge:</b> Olga M. Ristić, Marjan D. Milošević		
<b>Language of instruction:</b> English		
<b>ECTS:</b> 10		
<b>Prerequisites:</b> -		
<b>Semester:</b> Winter, Summer		
<b>Course unit objective:</b> Preparation for scientific research in the field of software quality assurance.		
<b>Learning outcomes of Course unit:</b> Ability of students to understand the quality of software, as well as gaining practical experience in the application of software quality management processes.		
<b>Course unit contents:</b> <i>Theoretical classes</i> The concept of software quality and software quality assurance. Software quality assurance requirements. Software quality models. Software quality testing. Quality measurement. Quality metrics. The price of software quality assurance. Software defects and their correction. Verification and validation. Processes, procedures and policies in software quality assurance. Software quality assurance planning. Reliability of software and software quality assurance techniques. Software quality assurance team organization. Case study. <i>Practical classes</i> Part of the teaching is realized through independent research work in the field of software quality assurance. Study research work includes active survey of scientific literature, organization and performance of experiments, data processing, writing a scientific paper in the scientific field to which the topic of the doctoral dissertation belongs.		
<b>Literature:</b> [1] M. A. Levin, T. T. Kalal, J. Rodin, <i>Improving Product Reliability and Software Quality</i> , John Wiley & Sons, Ltd, 2019. [2] Daniel Galin, <i>Software Quality Concepts and Practice</i> , Willey, 2018. [3] Lewis, William E. <i>Software testing and continuous quality improvement</i> , Taylor & Francis Group, 2009. [4] Scientific journals in the field of software quality: <i>Quality Engineering, Software Quality Journal, Software Testing Verification and Reliability</i> .		
<b>Number of active teaching hours: 7</b>	<b>Lectures: 5</b>	<b>Practice: 2</b>
<b>Teaching methods:</b> Lectures, consultations. Study research.		
<b>Evaluation (maximum number of points 100)</b> <b>Homework- 20</b> <b>Seminars- 30</b> <b>Oral exam- 50</b>		