

<b>Study Programme:</b> Ph.D. in Computer Science			
<b>Course Unit Title:</b> Software Quality			
<b>Course Unit Code:</b> ID015			
<b>Name of Lecturer(s):</b> Zoran Budimac, Gordana Rakić			
<b>Type and Level of Studies:</b> Doctoral Academic Degree			
<b>Course Status (compulsory/elective):</b> Elective			
<b>Semester (winter/summer):</b> Summer			
<b>Language of instruction:</b> Serbian (primary), English (secondary)			
<b>Mode of course unit delivery (face-to-face/distance learning):</b> Face-to-face			
<b>Number of ECTS Allocated:</b> 7			
<b>Prerequisites:</b> None			
<b>Course Aims:</b> One of the key goals of software engineering is the development of high quality software product. This goal can be reached through the software product development process whose quality is also monitored through the monitoring of compliance with standards in software development. Software quality is monitored through a number of characteristics of software products including: functionality, reliability, usability, efficiency and maintainability. An important factor in monitoring and controlling software quality is the measurement of indicators of the quality level.			
<b>Learning Outcomes:</b> A successful student will be able to: <ul style="list-style-type: none"> <li>• Identify and critically evaluate models and indicators of software quality</li> <li>• Critically evaluate the quality of the software product</li> <li>• Critically evaluate and select the proper tools under observation aspect of software quality</li> </ul>			
<b>Syllabus:</b> <i>Theory</i> Review of research in the field: the theoretical background in the field of software quality, software quality aspects, software quality models, the role of measurement in the field of software quality, software quality standards. Current trends of research in the field of quality and related fields (validation, verification, testing, defect analysis, etc.), software tools <i>Practice</i> Analysis and evaluation of the quality of specific software products using the available tools.			
<b>Required Reading:</b> 1. Jeff Tian „Software Quality Engineering: Testing, Quality Assurance, and Quantifiable“, John Wiley & Sons., 2005., 440 pages, ISBN 978-0-471-71345-6 2. Stephen H. Kan „Metrics and Models in Software Quality Engineering” Addison-Wesley, 2008, 528 pages, ISBN 0-201-72915-6			
<b>Weekly Contact Hours:</b> 2	<b>Lectures:</b> 2	<b>Practical work:</b> 0	
<b>Teaching Methods:</b> During lectures classical educational methods are used with the use of projector. Students independently deal with some research topics, present and discuss results to other students and to a teacher. Results are finally described formally in the form of seminar paper.			
<b>Knowledge Assessment (maximum of 100 points):</b>			
<b>Pre-exam obligations</b>	Points 50	<b>Final exam</b>	Points 50
Active class participation		written exam	
Practical work		oral exam	

Preliminary exam(s)		.....	
Seminar(s)			
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			