

<b>Course title:</b> Software quality		
<b>Lecturer(s):</b> Zoran D. Budimac		
<b>Status:</b> Elective		
<b>ECTS:</b> 7		
<b>Requirements:</b> None		
<b>Learning objectives</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 outcome</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>Lessons</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>Tutorials</i> Analysis and evaluation of the quality of specific software products using the available tools.		
<b>Recommended literature</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 teaching load</b>	Lectures:1	Student research:2
<b>Teaching methodology</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>Grading method (maximal number of points 100)</b> Exam entering requirements: 60 points for design of a seminar paper. Additional 40 points student can get by finishing and formal presentation of the seminar paper.		