

Study program / course: Mechanical Engineering				
Type and level of study: Bachelor academic studies				
Course: Software engineering				
Lecturers: Radovan Slavkovic, Nenad D. Filipovic				
Status of course: Obligatory for module M ₇ , VI semester				
Number of ECTS: 6				
Precondition: Computer tools, Algorithms and data structures, Programming language, Mathematics I,				
The objective of course Objective of course is introducing of students with basic software engineering as software model process, software documentation development, cost estimation, functional rules, object-oriented analysis, structural design, testing, manage of software projects.				
The outcome of course After this course and final exam from course Software Engineering, students can be involved in professional team software development. They will be able write software documentation, estimate cost of software, produce structural and object-oriented analysis in UML, produce specification and verification of software as well as to maintenance software projects.				
Syllabus Theoretical study Introduction into software engineering. Quality criteria for software products. Software process models. Basic principles and development of software documentation. Phase analysis. Software cost estimation. Functional rules. Data oriented rules. Structural analysis. Scenario principles. Object-oriented analysis. Software specification and verification. Software design. Structural design. Object-oriented design. Software application. Testing system. Functional testing. Software matrix. Software maintenance. Reverse engineering. Quality and standards. Ergonomics. Software project management.				
Practical classes Practices, Research study. Laboratory work: Application of software project development.				
Recommended reading 1. Veljovic, A., UML Basic object modeling, Computer library, Cacak, 2005 2. Filipovic, N., Programming language C, Technical Faculty, Cacak, 2003, Cacak 3. Filipovic, N., Object-oriented programming, manuscript. Technical Faculty Cacak, 2001, Чачак				
The number of hours of active teaching:				Other classes: 1
Theory: 3	Practical classes: 1.6	Other forms of teaching: 0.4	Research study: 0	
Methods of teaching				
Evaluation of knowledge				
Pre-final exam obligations	points	Final exam	points	
Activities during the classes:	10			
Practical classes:				
Colloquiums(s) :		Oral exam	60	
Seminar(s) :	30			