Course Unit Descriptor

Study Programme: Computer Science

Course Unit Title: Software Measurement

Course Unit Code: CS601

Name of Lecturer(s): Zoran Budimac

Type and Level of Studies: Bachelor Academic Degree

Course Status (compulsory/elective): Elective

Semester (winter/summer): Winter

Language of instruction: Serbian (primary), English (secondary)

Mode of course unit delivery (face-to-face/distance learning): Face-to-face

Number of ECTS Allocated: 6

Prerequisites: None

Course Aims:

The objective of this course is to provide students with theoretical background and applicability aspects of software measurement.

Learning Outcomes:

Minimum: Students should be able to apply the obtained knowledge in the field of software measurement through the software development process.

Desirable: Students should have good knowledge, the ability for critical analysis and application of knowledge in the field of software measurement for a software product and process improvement.

Syllabus:

Theory

The role of measurement in software development process, theoretical and practical perspectives on software measurement, goal-driven measurement, collecting, representing and analyzing data in software measurement, software quality modeling and measuring, reliability models, measuring size, structure, and effort in software development, software measurement standards.

Practice

Understanding and implementation of different software measurement techniques and algorithms, and application of software measurement in software development process through case studies and practical assignments by utilization of available software measuring tools.

Required Reading:

- Christof Ebert, Reiner Dumke, 2007, Software Measurement: Establish - Extract - Evaluate – Execute, Springer Science & Business Media
- Jones, C., 2008. Applied software measurement: global analysis of productivity and quality. McGraw-Hill Education Group.

Weekly Contact Hours: 4	**Lectures:** 2	**Practical work:** 2

Teaching Methods:

During lecture classes, the classical methods are used. Exercises are mostly consisting of case study analyses. Assignments are mostly practical, whose aim is to practically apply principles covered during lectures and exercises, using appropriate tools.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	Points 60	**Final exam**	Points 40
Active class		written exam	

participation			
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.			