Study programme(s): Computer Science

Level: B.Sc.

Course title: Software Measurement

Lecturer: Gordana Rakić

Status: elective

ECTS: 6

Requirements: -

Learning objectives

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

Theoretical instruction

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.

Practical instruction

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.

Literature

Recommended

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 teaching load				Other:
Lectures: 2	Exercises: 1	Practical Exercises: 2	Student research:	

Teaching methodology

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.

Grading method (maximal number of points 100)

Pre-exam obligations	**points**	**Final exam**	**points**
Partial assignments	60	Final project	40