

Subject code	Credits
INF3035	6

Course title in Lithuanian

PROGRAMINĖS ĮRANGOS TESTAVIMAS IR ANALIZĖ

Course title in English

SOFTWARE TESTING AND ANALYSIS

Short course annotation in Lithuanian (up to 500 characters)

Modulis supažindina su sisteminiais programinės įrangos testavimo metodais. Jis apima įvairius statinius ir dinaminius testavimo metodus ir jų panaudojimą programinės įrangos kūrimo procese. Nagrinėjami įvairūs automatizuoti ir rankiniai statinės analizės metodai.

Short course annotation in English (up to 500 characters)

The module gives an introduction to systematic methods of software testing. It covers a range of static and dynamic techniques and considers their use within the development process. Various automated and manual static analysis techniques are addressed.

Prerequisites for entering the course

Fundamentals of programming

Course aim

Introduce to systematic methods of software testing.

Content

No	Content (topics)
1.	Introduction to software testing.
2.	Testing maturity model.
3.	Levels of testing.
4.	Verification and validation. Static and dynamic approaches.
5.	Black box and white box testing. Black box and white box testing design strategies.
6.	Higher level testing (integration, configuration, etc.).
7.	Non-functional testing of integrated systems.
8.	Test management.
9.	Automated software testing tools.
10.	Applied programs testing and aspects of quality.

Distribution of workload for students (contact and independent work hours)

Lectures	45 hours
Laboratory work	30 hours
Individual students work	85 hours
Total:	160 hours

Structure of cumulative score and value of its constituent parts

Final assessment sums the assessments of written final examination (50%), written mid-term examination (17%), and assessment of laboratory works (33%).

Recommended reference materials

No.	Publication year	Authors of publication and title	Publishing house	Number of copies in		
				University library	Self-study rooms	Other libraries
<i>Basic materials</i>						
1.	1999	E.Dustin, J.Rashka, J.Paul Automated Software Testing: Introduction, Management, and Performance: Introduction, Management, and Performance	Addison Wesley			
2.	2009	R.Black. Managing the Testing Process: Practical Tools and Techniques for Managing Hardware and Software Testing	Wiley	On-line book: http://www.dcs.gla.ac.uk/Keith/Preface.html .		

Course programme designed by

Prof. Rimantas Šeinauskas, and Doc., dr. Aušra Mackutė-Varoneckienė, Department of Applied Informatics