SUBJECT DESCRIPTION

Course unit title	Course unit code
Java development	

Lecturer(s)	Department where the course unit is delivered
Coordinator: Raivydas Šimėnas **Other:**	Institute of Mathematics Faculty of Mathematics and Informatics Naugarduko 24, LT-03225 Vilnius

Cycle	Level of course unit	Type of course unit
1st (Bachelor)		Optional

Mode of delivery	Semester or period when the course unit is delivered	Language of instruction
Face-to-face	5th semester	English

Prerequisites and corequisites	
Prerequisites: -	**Corequisites (if any):** -

Number of ECTS credits allocated	Student's workload	Number of contact work hours	Number of stand-alone working hours
5	130	48	82

Purpose of the course unit: program competences to be developed		
In this course the students will be taught to program in one of the most popular modern programming languages Java. The students will get acquainted or further develop the skills in object-oriented programming. The aim of the course is to prepare the student to solve real world problems using Java and to give him enough knowledge required by the job market.		
Learning outcomes of the course unit: students will be able to	**Teaching and learning methods**	**Assessment methods**
Will learn to apply object-oriented programming to the real world problems.	Lectures, practice classes, individual program writing.	Tests Programming assignments Project
Will acquire enough Java programming knowledge required by the job market.		

Course content: breakdown of the topics	**Contact hours**						**Individual work: time and assignments**	
	Lectures	Tutorials	Seminars	Practice	Laboratoriniai darbai	**Contact hours**	**Individual work**	**Assignments**
Basic Java syntax	4			7		**11**	**20**	Programming assignments, project, tests
Java data structures	4			7		**11**	**20**	
Object-oriented programming in Java	4			7		**11**	**20**	
Java in industry	4			7		**11**	**22**	
Exam						**4**		Exam
Total	**16**			**28**		**48**	**82**	

Assessment strategy	Weight (%)	Assessment time	Assessment criteria
Weekly tests	20	Course of semester	At the beginning of each class the students will have to briefly answer a question from the previous lecture. The instructor will assess how well the students have learned the previous class material.
Programming assignments	20	Course of semester	During each class the students will have to write mini programs from the class material. The instructor will assess how well the programs function.
Project	20	End of semester	The students will have to prepare a mid-sized program. The instructor will assess the user interface and the effectiveness of the program.
Exam	40	End of semester	The students will have to take an exam which will consist of theoretical questions and practical programming problems.

Author	Year	Title	Publisher or URL
Required reading			
K. Sierra and B. Bates	2005	Head First Java	O'Reilly Media
Recommended reading			
J. Bloch	2017	Effective Java	Addison-Wesley Professional