COURSE UNIT DESCRIPTION

Course unit title	Course unit code
Semester Project	**ITSPD**

Lecturers	Department where the course unit is delivered
Coordinator: lector Eduardas Kutka **Other lecturers:** Lecturers of Computer Science II Department	Department of Computer Science II Faculty of Mathematics and Informatics Vilnius University

Cycle	Type of the course unit
First	Optional

Mode of delivery	Semester or period when the course unit is delivered	Language of instruction
Individual work with tutorials	4th, 5th, or 6th semester	Lithuanian and English

Prerequisites

Number of ECTS credits allocated	Student's workload	Contact hours	Individual work
5	134	5	129

Purpose of the course unit: programme competences to be developed

Generic competences to be developed

- Ability for abstract thinking , processing and analyzing information *(BK3)*
- Ability to use information and communications technologies *(BK5)*
- Ability to plan and manage tasks *(BK6)*
- Ability to act on the basis of ethical reasoning *(BK7)*

Subject-specific competences to be developed

- Ability to apply general methods of the program design, make and analyze software requirements *(DK1)*
- Ability to analyse the algorithmic process of the task based on the general properties of the algorithm *(DK2)*
- Ability to develop the software project (or IT service) and to write its specification *(DK3)*

Learning outcomes of the course unit	Teaching and learning methods	Assessment methods
Ability to summarize and systematize requirements of the task, goals or process of the task solution or realization process.	Project planning, dividing work into steps	Presenting work plan in written form
Ability to distinguish positive and negative features of software product of user interfaces, installation, support, compatibility with other software noting specific characteristics of the task.	Review of similar products, independent analysis of subject or methodological literature	Partial abstract submission
Ability to plan own (or group) work (as well as work distribution in the group), estimating the complexity of the given task considering lecturer's or subject teacher's comments or suggestions.	Dividing work in groups if it is group work; work planning in steps; preparation of written work; organizing meeting with lecturer	Submission parts of written work
Ability to apply knowledge of copyright and software	Analysis of software	Partial abstract submission

licenses types that allow ethically deal with a variety of available private user information and software.	licenses and good usage of source citation	
Ability to provide algorithm in a suitable form for a formulated task, program or process and ability to implement algorithms provided by others.	Creation of algorithms and models	Submission of the model
Ability to write programs using the chosen programming language and paradigm for application area.	Implementation of the model	Implementation of the model, submission of code
Ability to write specifications and user manuals for own created software.	Preparation of final report	Submission of whole work report and final work defense

Course content: breakdown of the topics	**Individual work: time and assignments**							
	Lectures	Tutorials	Seminars	Laboratory work	Internship/work placement	**Contact hours**	**Individual work**	**Assignments**
1. Review		0.5				0.5	**15**	An interest in the subject. Formulation of the tasks.
2. Analysis		1				1	**25**	Analysis of literature. Selection of related works and software.
3. Design		1				1	**25**	Design of the model. Recording of working steps.
4. Realization		1				1	**25**	Realization of the model. Implementation and evaluation of outcomes.
5. Preparation of the work		1				1	**25**	Preparation of progress reports and delivery of the work on time.
6. Preparation for the final defense		0.5				0.5	**14**	Preparing slides and speech for the final defense.
Total		**5**				**5**	**129**	

Assessment strategy	**Weight %**	**Deadline**	**Assessment criteria**
Project planning	10%	During the semester	Creating and following project plan (3 points), delivering tasks on time (4 points), regular meetings with lecturer (3 points).
Practical work	20%	During the semester	Analysis of related work and literature (2 points), development of a theoretical model (4 points), implementation of the model (4 points).
Description of the work	20%	During the semester	Formulation of the introduction (1 point), analysis of literature and quality of the text (5 points), citation of sources (1 point), formulation of results and conclusions (2 points), design of the work (1 point).
The final defense.	50%	Exam session	Preparation of the slides (2 points), the smooth presentation of the work (4 points), ability to respond to the questions (4 points).

Author	Publishing year	Title	Issue No or volume	Publishing house or Internet site
Required reading				
E. Kutka	2012	Semester Project. Study Guide		VU MIF
Optional reading				
VU MIF Department of Computer Science II		Requirements for submission of semester, bachelor, and master reports (orig. Kursinių, bakalauro ir magistro darbų apipavidalinimo reikalavimai)		http://mif.vu.lt/cs2/lt/studentams/files/DarbaiKursBakMag.pdf
VU MIF Department of Software Engineering	2011	Recommendations for semester reports (orig. Kursinių darbų metodiniai nurodymai)		http://www.mif.vu.lt/katedros/se/Studentams/KURSINIO%20DARBO%20METODINIAI%20NURODYMAI%202011_AL.pdf