COURSE UNIT (MODULE) DESCRIPTION

Course unit (module) title	Code
GRAPHICAL BUSINESS PROCESS MODELLING	

Academic staff	Core academic unit(s)
Coordinating: Prof. Audrius Lopata **Other:**	Vilnius University (VU) Kaunas faculty Institute of Social Sciences and Applied Informatics Muitinės g. 8, LT-44280 Kaunas

Study cycle	Type of the course unit
First cycle	Mandatory or Individual Studies

Mode of delivery	Semester or period when it is delivered	Language of instruction
Face-to-face Lithuanian	Spring semester	Lithuanian/ English

Requisites	
Prerequisites: Mathematic, Informatics	**Co-requisites (if relevant):** English

Number of ECTS credits allocated	Student's workload (total)	Contact hours	Individual work
5	135	52	83

Purpose of the course unit
To obtain methodologies, techniques and tools for business domain modeling (enterprise modeling) for business process re-engineering and IS development . To get knowledge of methods and standards of enterprise modeling. To get acquainted with a set of notations for BP and enterprise modeling. Develop skills for using business process modeling tools for modeling different views (aspects) of Enterprises, management functions. To get practical experience of various types of enterprise modeling packages .

Learning outcomes of the course unit	Teaching and learning methods	Assessment methods
knowledge of enterprise modeling and business process modeling scope, approaches and standard	Lecture Practical problem solving Problem based learning. Practical use of business process modeling software	Middterm test, Exam (open and closed questions) Individual assignments
knowledge of enterprise modeling methods, languages and tools	Lecture Practical problem solving Problem based learning. Practical use of of business process modeling software	Middterm test, Exam (open and closed questions) Individual and team assignments
skills of implemetation of enterprise modeling methods and tools for business process improvement	Lecture Practical problem solving Problem based learning. Practical use of of business process modeling software	Middterm test, Exam (open and closed questions) Individual and team assignments
skills of implemetation of enterprise modeling methods and tools for information systems requirements anlysis and specificatio	Lecture, Practical problem solving. Problem based learning. Practical use of of business process modeling software	Exam (open and closed questions) Individual and team assignments

Content	Contact hours							Individual work: time and assignments	
	Lectures	Tutorials	Seminars	Workshops	Laboratory work	Internship	Contact hours, total	Individual work	Tasks for individual work
1. Enterprise modeling and business process modeling scope. Introduction to Enterprise modeling: languages and tools.	2				2		**4**	**2**	
2. UML Behaviour models for business process modeling. (Use Case, Activity, State machine, Sequence, Communication, Timing)	2				8		**10**	**16**	
3. Business process modeling and meta-modeling using modified workflow models (WF of business processes, WF of Processes, WF of functions, WF of functional Composition) and knowledge based subsystem.	4				12		**16**	**25**	
4. New languages for enterprise modeling OMG standards, Business process modeling language BPMN. Model Driven Architecture (MDA)	8				10		**18**	**20**	
5. Preparation for exam, exam and consultation		2	2				**4**	**20**	
Total	16	2	2		32		**52**	**83**	
Total									

Assessment strategy	Weight %	Deadline	Assessment criteria
Colloquium	20	10th week	Ten grade and gathered evaluation system is applied.
The semester˙s individual work	40	15th week	Ten grade and gathered evaluation system is applied.
Examination	40	examination session	The final grade is given during the examination session while multiplying particular grades by the lever coefficient and summing the products.
Ten grade and gathered evaluation system is applied. The semester˙s individual work tasks are evaluated by grades;			

The following aspects of the assignment are evaluated : -Submitted report of the assignment: The methods are sufficiently understood, the tasks are fulfilled without mistakes. The structure of the task ir clear and logical, all parts of the report (introduction, modeling steps, conclusions are structurized and meaningful; -Defence of the assignment. Answers to the control questions according to the task topics. Not submitting the task report– 0 grade.

Author (-s)	Publishing year	Title	Issue of a periodical or volume of a publication	Publishing house or web link
Required reading				
1. M. Seidl	2022	UML @ Classroom: An Introduction to Object-Oriented Modeling (Undergraduate Topics in Computer Science).	ISBN-10: 3319127411	Springer.
2. S. Gudas	2012	Informacijos sistemų inžinerijos teorijos pagrindai. Monografija.	ISBN 978-609-459-075-7	Vilnius: Vilniaus universitetas.
3. 2025 uml-diagrams.org. All rights reserved. Authored by Kirill Fakhroutdinov.	2021	UML 2.4 Diagrams Overview		https://www.uml-diagrams.org/uml-24-diagrams.html
4. Copyright © 2025 Object Management Group ®, OMG ® | All Rights Reserved	2025	UML Tutorial and Specifications		https://www.omg.org/spec/UML/2.5.1/About-UML

NOTE: Including Open Educational Resources in the reading list is recommended