Course unit title	Course unit code
GRAPHICAL BUSINESS PROCESS MODELLING	

Lecturer (s)	Department where course unit is delivered
Coordinator: Prof. Audrius Lopata	Vilnius University (VU) Kaunas faculty Institute of Social Sciences and Applied Informatics Muitinės g. 8, LT-44280 Kaunas

Cycle	Level of course unit	Type of the course unit
First cycle	1/1	Mandatory

Mode of delivery	Semester or period when the course unit is delivered	Language of instruction
Face-to-face	7 semester	Lithuanian

Prerequisites and corequisites	
Prerequisites: Mathematic, Informatics	**Corequisites:** English

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

Purpose of the course unit: programme competences to be developed		
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 course unit	**Teaching and learning methods**	**Assessment methods**
knowledge of enterprise modeling and business process modeling scope, approaches and standards	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	Lecture	Middterm test,

enterprise modeling methods and tools for information systems requirements anlysis and specification	Practical problem solving Problem based learning. Practical use of of business process modeling software	Exam (open and closed questions) Individual and team assignments

Course content: breakdown of the topics	Contact work hours							Individual work hours and tasks	
	Lectures	Consultations	Exam	Practice classes	Laboratory	Practice	All contact work	Individual work	Tasks
1. Enterprise modeling and business process modeling scope. Introduction to Enterprise modeling: languages and tools.	2				2		4	2	Theoretical studies, Individual work tasks definition
2. UML Behaviour models for business process modeling. (Use Case, Activity, State machine, Sequence, Communication, Timing)	2				8		10	16	Theoretical studies Individual work tasks Middterm test
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	16	Theoretical studies Individual work tasks Middterm test
4. New languages for enterprise modeling OMG standards, Business process modeling language BPMN. Model Driven Architecture (MDA)	4				6		10	16	Theoretical studies Individual work tasks
5. Modeling of manufacturing enterprises IDEF standards. IDEF0 and IDEF3 Notations.	2				2		4	9	Theoretical studies Individual work tasks
6. Goal –driven Business modeling. GORE methodology, KAOS model.	2				2		4	4	Individual work tasks
Preparation for exam, exam and consultation		2	2				4	20	
Total	**16**				**32**		**52**	**83**	

Assesment strategy	Com para tive weig ht perc enta ge	Date of examinat ion	Assesment criteria
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.			
Colloquium.	0,2	10th week	Ten grade and gathered evaluation system is applied.
The semester᾽s individual work	0,4	15th week	Ten grade and gathered evaluation system is applied.
Examination	0,4	examinati on session	The final grade is given during the examination session while multiplying particular grades by the lever coefficient and summing the products.

Author	Yea r	Title	Number of periodical publication	The place of publication and publisher or online link
Required reading				
1. M. Seidl	2015	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. UML 2.4 Diagrams Overview	2019	https://www.uml-diagrams.org/uml-24-diagrams.html		
Recommended reading				
1. K. C. Laudon, J. P. Laudon	2008	Management Information Systems. Managing the Digital Firm.		Prentice Hall.
2. K. E. Wiegers	2003	Software Requirements, Second Edition.	ISBN 0735618798	Microsoft Press.
3. A. Dennis, B. H. Wixon. J. Krogstie, A. Lothe O.	2007	Systems Analysis and Design. Conceptual Modelling in	ISBN 978-3-540-72676-0	John Wiley and Sons, Inc. Springer Berlin Heidelberg

S. Brinkkemper (Eds.)		Information Systems Engineering.		New York.
5. J. D. Sterman	2000	Business Dynamics. System Thinking and Modeling for a Complex World.	ISBN 0- 07-231135-5	Irwin McGraw-Hill Higher Education.