COURSE UNIT DESCRIPTION

Course unit title	Course unit code
The Practice of Enterprise Architecture	

Lecturer(s)	Department where the course unit is delivered
Coordinator: Audrius Džiaugys **Other lecturers: -**	Department of Software Engineering, Institute of Compute Science, Vilnius University

Cycle	Level of course unit	Type of the course unit
Second	-	Elective

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

Prerequisites and corequisites	
Prerequisites: "Architecture of software systems".	**Corequisites (if any): -**

Number of ECTS credits allocated	Student's workload	Contact hours	Self-study hours
5	135	52	83

Purpose of the course unit: programme competences to be developed	
The course covers basic topics of Enterprise Architecture (EA) practice in a modern organization. During the course students get familiar with EA frameworks and its usage in organization wide IT system planning. Students use enterprise modelling techniques to transform business strategies to implementable systems architectures of specific information systems.	

Learning outcomes of the course unit: students will be able to	Competence area	Teaching and learning methods	Assessment methods
Apply gained engineering knowledge – methods, frameworks and standards of EA in developing well-engineered systems.	4.1, 4.2, 4.3, 5.2, 6.1	Lectures, problem-oriented teaching, case studies, information retrieval, literary reading, individual work, tutorials, lab assignments.	Lab assignments and presentation of their results, written exam (open, semi-open and close-ended questions and tasks).
Use the enterprise architecture modeling tools for development sophisticated application software systems	4.1, 4.2, 4.3, 5.2, 6.1		
Work in a team by analyzing use cases and modeling the goals, processes and management functions of organizations, using enterprise architecture frameworks, to justify modeling solutions.	1.1, 1.2, 3.1, 3.2		
Communicate the results effectively, articulate a personal position, present arguments, give reasons to support the opinion.	3.2		

Course content: breakdown of the topics	Contact hours						Self-study work: time and assignments	
	Lectures	Tutorials	Seminars	Practice	Lab assignmens	Practical training	Contact hours	Self-study hours	Assignments
1. Enterprise architecture	2				1		**3**	**25**	1st lab assignment: select one of industry

Topic	Lectures				Lab		Total	Self-study	Description
Frameworks and enterprise development - The Concept of Enterprise Architecture									available Enterprise Architecture framework, analyze it. Present findings to the group. Self-study of literature.
2. The Role of Enterprise Architecture Practice	2				1		3		
3. Enterprise Architecture and City Planning.	2				1		3		
4. The Dialog Between Business and IT	2				1		3		
5. Processes of Enterprise Architecture Practice	2				1		3		
6. IT Initiatives and Enterprise Architecture.	2				1		3		
7. The CSVLOD Model of Enterprise Architecture	2				1		3	36	2nd lab assignment: For a selected enterprise develop EA artifacts using selected Enterprise architecture framework and CSVOLD model. Compare them. Present findings to the group. Self-study of literature.
7.1. Considerations	2				1		3		
7.2. Standards	2				1		3		
7.3. Visions	2				1		3		
7.4. Landscapes	2				1		3		
7.4. Outlines	2				1		3		
7.5. Designs	2				1		3		
8. The CSVLOD Model Revisited	2				1		3		
9. Architects in Enterprise Architecture Practice Architecture Functions in Organizations	2				1		3	18	3rd lab assignment: Develop Enterprise Architecture implementation strategy for selected enterprise. Self-study of literature.
10. Instruments for Enterprise Architecture The Lifecycle of Enterprise Architecture Practice	2				1		3		
11. Preparing for the exam and taking the final exam (written)							4	4	Self-study of literature. Consultation before exam – 2 hours, exam – 2 hours.
Total	**32**				**16**		**52**	**83**	

Assessment strategy	Weight,%	Deadline	Assessment criteria
1st lab assignment	15	6th week of the semester	Assessment of the lab assignments. For each fully completed and timely defended lab assignment, 1 point (of 10) is awarded. If the assignment is done partially, in poor quality or late, the points are reduced. Lateness no more than 2 weeks leads to reducing the assessment in 25%, lateness no more than 4 weeks – 50%, later – 75%.
2nd lab assignment	25	14th week of the semester	
3rd lab assignment	10	16th week of the semester	
Exam (written)	50	Exam session	Exam consists of open, semi-open and close-ended questions from the topics covered in lectures. The exam is allowed only when all the lab assignments are completed and defended for at least 5 points (of 10, not considering reduction for lateness). At least 50% of the exam points must be collected to pass the exam.

Author	Year	Title	Number or volume	Publisher or URL
Required reading				
Svyatoslav Kotusev	2021	The practice of Enterprise Architecture		SK Publishing, Melbourne, Australia
The Open Group		The ArchiMate® Enterprise Architecture Modeling Language		The ArchiMate® Enterprise Architecture Modeling Language	opengroup.org
Scaled Agile Inc.		SAFe 6.0		SAFe 6.0 (scaledagileframework.com)
The Open Group		TOGAF		TOGAF Fundamental Content	

				opengroup.org
TMF		Open Digital Framework		Open Digital Framework - TM Forum

Recommended reading				
The Open Org		CMMI		CMMI – architecture maturity models Architecture Maturity Models (opengroup.org)
DRATA		14 Security Frameworks And Standards to consider		14 Security Frameworks and Standards to Consider (drata.com)
Network Applications Consortium		Enterprise Security Architecture		Enterprise Security Architecture: A Framework and Template for Policy-Driven Security (opengroup.org)