

**(Vilniaus universiteto studijų dalyko (modulio) aprašo tipinė forma anglų kalba)**



**COURSE UNIT (MODULE) DESCRIPTION**

Course unit (module) title	Code
<b>INFORMATION ARCHITECTURE DESIGN FOR AN ORGANISATION</b>	

Academic staff	Core academic unit(s)
<b>Coordinating: Prof. Audrius Lopata</b>	Institute of Social Sciences and Applied Informatics, Kaunas Faculty, Vilnius university
<b>Other:</b>	

Study cycle	Type of the course unit
First <input checked="" type="checkbox"/> Second <input type="checkbox"/>	Compulsory Course <input checked="" type="checkbox"/> Optional Course <input type="checkbox"/> Course Unit (Module) of the General University Studies <input type="checkbox"/> Course Unit (Module) of Individual Studies <input checked="" type="checkbox"/> Interdisciplinary Studies Course Unit (Module) <input type="checkbox"/>

Mode of delivery	Semester or period when it is delivered	Language of instruction
Face-to-face	5 semester	English

Requisites	
<b>Prerequisites:</b> None	<b>Co-requisites (if relevant):</b> None

Number of ECTS credits allocated	Student's workload (total)	Contact hours	Individual work
5	30	48	82

Purpose of the course unit		
To develop the ability to explain and apply classical concepts of general systems theory, regularities of complex systems and principles of systems analysis, methods of analysis of organizational systems activities and activities management, qualitative methods of systems analysis, theoretical and practical methods of systematic analysis and modeling of organizational activities and their management. To develop practical skills to work with business modeling software packages used to reorganize and computerize activities, implementing advanced information technologies. To provide students with theoretical knowledge and practical skills to apply the MODAF framework in developing, analyzing and documenting complex defense/state system architectures, thus ensuring decision support, interface management and meeting stakeholder needs.		
Learning outcomes of the course unit	Teaching and learning methods	Assessment methods
Be able to design an organization's information architecture using the main MODAF framework models	Lecture Practical problem solving Problem based learning. Practical use of business process modeling software.	Middterm test, Exam (open and closed questions) Individual and team assignments
Be able to identify and apply in practice the main MODAF aspects (AV, StV, OV, SV, SvcV, TV, AcV, PV) and specific models of these aspects.	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
Be able to reconcile technical and business requirements and provide	Lecture Practical problem solving Problem based learning. Practical use	Middterm test, Exam (open and closed questions)

recommendations for architectural solutions, prepare a clear, structured architectural document/report for different beneficiaries (management, engineers, procurement department).	of of business process modeling software	Individual and team assignments
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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. Introduction to the issues of Organizational Information Architecture design and the activities and principles of Organizational Analysis from a systems perspective.	2						2	10	Study of literature ([3], Chapter 1). Individual task: selection of the problem domain
2. Fundamentals and concepts - MODAF history, purpose, terminology, architectural principles and relationship with other frameworks (DoDAF, TOGAF, UAF).	2				2		4	20	Study of literature ([3], Chapter 2). Exercises: Analysis of GST concepts
3. Practical application and management of MODAF - architecture development process, version/configuration management, tools (Magic Draw), documentation and collaboration between stakeholders.	2				2		4	10	Study of literature ([3], Chapter 5). Exercises: Analysis of CST concepts
4. MODAF framework, its implementation in the CASE tool Magic Draw (MD) environment	4				10		14	20	Exercises: Modeling of information architecture of an organization from a systemic point of view. analysis of logical relationships between models using MODAF framework (individual task).
5. The main MODAF Views - AV, StV, OV, SV, SvcV, TV, AcV, PV: their purpose and content	6				18		24	22	
<b>Total</b>	<b>16</b>				<b>32</b>		<b>48</b>	<b>82</b>	

Assessment strategy	Weight %	Deadline	Assessment criteria
Practical Work No.1	20	9th week	Individual work is evaluated according to the given individual task in a specific subject area
Midterm Exam	20	10th week	The colloquium includes the presented theoretical and practical material, evaluation on a 10-point scale.
Practical Work No.2	20	15th week	Individual work is evaluated according to the given individual task in a specific subject area
Exam	40	January	The colloquium includes the presented theoretical and practical material, evaluation on a 10-point scale

**REGARDING THE EXTERNAL EXAMINATION OF THE COURSE UNIT**

Mark <input checked="" type="checkbox"/>		If permitted, please provide the conditions	
<b>Not permitted</b>	<input type="checkbox"/>	<b>Permitted</b>	<input checked="" type="checkbox"/>
<p>For those wishing to take the external examination of this course unit, the course assessment consists of a project or essay (40%), which must be submitted to the lecturer via email (or uploaded to the e-learning platform) no later than 5 days before the exam, and an exam (60%).</p> <p>When evaluating a project/essay and an exam, the same criteria are applied as when studying the subject regularly.”</p>			

**REGARDING THE USE OF GENERATIVE ARTIFICIAL INTELLIGENCE (GenAI) TOOLS (SUCH AS "CHATGPT", ETC.) WHEN STUDYING THE COURSE UNIT**

Mark <input checked="" type="checkbox"/>		If permitted, please provide the conditions	
<b>Not permitted</b>	<input type="checkbox"/>	<b>Permitted</b>	<input checked="" type="checkbox"/>
<p>GenAI may only be used if the lecturer specifies that a particular assignment may be completed using GenAI; otherwise, it will not be graded.</p> <p>If the use of GenAI tools is permitted for completing assignments, the citation requirements set forth in the <u>Guidelines for the Use of Artificial Intelligence at Vilnius University</u> must be strictly followed.”</p>			

**REGARDING ACADEMIC PROGRESS**

A student who (1) **throughout the semester consistently** fails to demonstrate **progress in achieving the expected learning outcomes of a subject (module)** during the practical classes (seminars, exercises, laboratory work, etc.) and (2) fails to complete all interim assessment requirements and tasks within the time specified in the course description, is not allowed to participate in the examination session.

Author (-s)	Publishing year	Title	Issue of a periodical or volume of a publication	Publishing house or web link
<b>Required reading</b>				
1. Ministry of Defence (UK)	2023	General System Theory: Foundations, Development, Applications	3th edition	<a href="https://www.gov.uk/guidance/mod-architecture-framework">https://www.gov.uk/guidance/mod-architecture-framework</a>
2. L.Von Bertalanffy	2021	General System Theory: Foundations, Development, Applications	2nd Edition	George Braziller Inc. ISBN-10: 0807600156
S. Gudas	2012	2 Informacijos sistemų inžinerijos teorijos pagrindai. Monografija		Vilnius: Vilniaus universiteto leidykla. ISBN978-609-459-075-7

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