COURSE UNIT (MODULE) DESCRIPTION

Course unit (module) title	Code
Enterprise architecture	

Academic staff	Core academic unit(s)
Coordinating: Partnership associate. prof. Rokas Visockas **Other:**	Faculty of Economic and Business Administration, Digital Transformation research department

Study cycle	Type of the course unit
Second grade	Mandatory

Mode of delivery	Semester or period when it is delivered	Language of instruction
On campus	Autumn semester	English

Requisites	
Prerequisites: Familiarity with the information systems implementation lifecycle, including key phases and activities.	**Co-requisites (if relevant):**

Number of ECTS credits allocated	Student's workload (total)	Contact hours	Individual work
5	130	32	98

Purpose of the course unit
The purpose of this course is to provide students with a comprehensive understanding of Enterprise architecture and its strategic role in organizational management, digital transformation, and business-IT alignment. The course aims to equip students with the knowledge and practical skills needed to assess organizational business and information needs, analyze architectural capabilities, and design architectural solutions that support the successful implementation of organizational strategies. Through the study process, students will gain the conceptual and practical foundation required to evaluate business, information, application, and technology architectures, manage architectural change, and leverage Enterprise architecture as a key organizational competency for creating strategic value. The course prepares students to contribute effectively to large-scale projects, digital transformation initiatives, and enterprise-wide organizational change in both private and public sector organizations. **Gained knowledge will allow students to:** • Understand the principles, frameworks, and methodologies of Enterprise architecture and their application to create strategic value, improve organizational effectiveness and support the successful execution of organizational strategy. • Analyze business, information, application, technology architectures and evaluate their role in supporting organizational goals and capabilities. • Assess organizational information needs and design architectural solutions that ensure effective alignment between business strategy and information technology. • Plan and manage architectural change in support of large-scale projects, digital transformation programs, and enterprise-wide transformation initiatives.

Learning outcomes of the course unit	Teaching and learning methods	Assessment methods
Gain a comprehensive understanding of Enterprise architecture concepts, principles, frameworks and their role in supporting organizational strategy and digital transformation. Develop the ability to analyze, design, and evaluate business, information, application and technology architectures in complex organizational environments. Be capable of applying enterprise architecture methodologies and modeling techniques to align business objectives with information systems and technology capabilities. Develop skills to assess architectural alternatives and make informed strategic decisions considering economic, organizational, technological, compliance and other aspects. Understand the role of enterprise architects in organizational transformation initiatives and be able to collaborate effectively with business and technology stakeholders. Acquire practical experience in developing architectural artifacts and recommendations for real-world business scenarios.	**Lectures**: presentation of theoretical concepts, frameworks, methodologies, and best practices; analysis of real-world case studies, group discussions. **Seminars:** facilitated discussions, architecture case study analysis exercises and group-based problem-solving activities focused on real or simulated organizational challenges. **Project Work:** define organizational architecture challenges, develop architectural artifacts, recommendations and other project deliverables addressing actual business needs.	• Participation and contribution in group discussions. • Course project preparation and presentation (iterative work throughout the course) • Exam with closed and open questions.

Content	Contact hours							Individual work: time and assignments	
	Lectures	Tutorials	Seminars	Workshops	Laboratory work	Internship	**Contact hours, total**	**Individual work**	**Tasks for individual work**
Introduction to Enterprise Architecture.	2		2				**4**	**8**	Studying course materials, completing readings and preparing project deliverables.
Zachman Framework. TOGAF framework.	2		2				**4**	**16**	Studying course materials, completing readings and preparing project deliverables.
Architecture Development Method (ADM).	2		2				**4**	**8**	Studying course materials, completing readings and preparing project deliverables.
Architecture visualization. ArchiMate.	2		2				**4**	**16**	Studying course materials, completing readings and preparing project deliverables.
Business architecture. Stakeholders. Strategy and goals.	2		2				**4**	**14**	Studying course materials, completing readings and

									preparing project deliverables.
Data and information architecture. Application architecture.	2		2				**4**	**14**	Studying course materials, completing readings and preparing project deliverables.
Technology architecture. Integration architecture.	2		2				**4**	**14**	Studying course materials, completing readings and preparing project deliverables.
Enterprise architecture maturity model. Architecture governance. IT audit.	2		2				**4**	**8**	Studying course materials, completing readings and preparing project deliverables.
Total	**16**		**16**				**32**	**98**	

Assessment strategy	Weight %	Deadline	Assessment criteria
Course project work	50%	Iterative, final presentation in the last lecture	Project where students select an organization, business domain, or business case and perform an Enterprise architecture assessment, including current-state analysis, target-state architecture design, and development of a transformation roadmap aligned with business strategy. Assessment criteria include: • Quality and depth of the current-state architecture analysis. • Clarity and logic of problem definition, stakeholder needs and gap analysis. • Quality and completeness of architecture models and artifacts across business, application, data and technology domains. • Quality, feasibility and consistency of the proposed target architecture. • Application of Enterprise architecture principles, frameworks and best practices. • Strength of solution selection, business justification and architectural decision-making. • Quality of transformation roadmap, governance recommendations and risk assessment. • Clarity, structure, and professionalism of project documentation and final presentation. • Demonstrated critical thinking and provisioning of recommendations.
Exam	30%	At the end of the course	Exam consisting of closed and open questions. Assessment criteria include: • Quality and accuracy of Enterprise Architecture course knowledge and terminology. • Ability to explain and justify decisions.
Active participation	20%	Throughout the course	Consistent attendance and meaningful participation in lectures, discussions and seminar workshops.

Author (-s)	Publishing year	Title	Issue of a periodical or volume of a publication	Publishing house or web link
Required reading				
Jager, E.	2023	Getting started with enterprise architecture		Apress

The Open Group	2022	The TOGAF Standard, 10th Edition.		‘s-Hertogenbosh: Van Haren Publishing.
Zachman, J.	2008	The Zachman framework		https://zachman-feac.com/zachman/about-the-zachman-framework
Desfray, P. Raymond, G. Dierna, A.	2014	Modeling enterprise architecture with TOGAF: a practical guide using UML and BPMN		Waltham, Massachusetts: Morgan Kaufmann
McDowall, J.D.	2019	Complex Enterprise Architecture: A New Adaptive Systems Approach		Apress
Recommended reading				
Ross, J.W. Weill, P. Robertson, D.C.	2006	Enterprise Architecture as Strategy: Creating the foundation for business execution	-	Harward Business Review Press, New York, NY: McGraw-Hill
Visual Paradigm Online		Archimate Diagram Templates		https://online.visual-paradigm.com/diagrams/templates/archimate-diagram/