Course unit title	Course unit code
Analysis and Specification of IS Requirements	

Lecturer (s)	Department where course unit is delivered
Prof. Audrius Lopata	Kaunas Faculty
	Institute of Social Sciences and applied
	Informatics

Cycle	Level of course unit	Type of the course unit
First	1/1	Compulsory, Individual Studies

Mode of delivery	Semester or period when the course unit is delivered	Language of instruction
Auditorial	Autumn Semester	English

Prerequisites and corequisites					
Prerequisites:	Corequisites:				
-	-				

Number of ECTS credits allocated	Student's workload	Contact work hours	Individual work hours
5	130	52	78

Purpose of the course unit: program competences to be developed								
To develop the skills of identifying, specifying and validating the user requirements for information systems as well as								
develop the ability to evaluate and select the necessary methods and tools in order to complete user requirements								
Learning outcomes of course unit	reaching and learning	Assessment methods						
	methods							
Will be able to apply the user requirements								
specification techniques in information systems	Lectures, Individual Work	Final Exam						
development lifecycle, evaluate their results, apply								
the necessary principles, methods and tools to								
Will be all the second development process.								
will be able to analyze and assess the various								
needs of the information system user according to								
identifying these needs and cools for								
requirements: Will be able to analyze evaluate								
interpret and solve IS consumer needs	Individualus darbas	Egzaminas atliktų individualių						
identification and requirements specification	(projektas), kviestinių	darbu rezultatu gynimas rezultatu						
problems: Will be able to apply creatively the	dėstytojų (praktikų)	pristatymas pateikiant ataskaita						
acquired knowledge for specification of user	paskaitos	pristatymus paterkiant ataskardį.						
requirements: Will be able to work effectively in a								
group; Will be able to communicate effectively								
with IT specialists and fieldworkers; will be able to								
organize their work and plan work time.								
Upon successful completion of this course,								
students will understand:								
• the need for requirements for large-scale systems.								
 the stakeholders involved in requirements 	Practical Work, Case	Individual project						
engineering.	stiudies	individual project						
 user requirements engineering processes. 								
• models of requirements.								
• functional requirements, non-functional								

requirements as well as scenario analysis	
 object-oriented and goal-oriented requirements 	
engineering issues.	

		Cor	ntac	t woi	rk ho	ours	Ind	Individual work hours and tasks		
Course content: breakdown of the topics	Lectures	Consultations	Seminars	Practice classes	Laboratory	Practice	All contact	Individual work	Tasks	
Requirements for information systems engineering	2						2	2	Individual studies of	
concept. Requirements hierarchy. Technical task.									Literature ([1] Chapter No.1), Practical work.	
Functional and Non- Functional Requirements. Reuirements fos system's maintenance.	2			4			6	8	Individual studies of Literature ([1] Chapters No. 10, 11), Labs in computer classrom.	
Composition of functional and non-functional requirements. Participants of requirements specification process.	2			6			8	6	Individual studies of Literature ([1] Chapter No. 3), Individual project, labs in computer classrom.	
Methods and techniques of user requirements acquisition and documentation procedures. User requiments acquisition and specification templates. Linking requirements to project decisions.	2			4			6	8	Individual studies of Literature ([1] Chapter No. 2), Individual project, labs in computer classrom.	
Requirements analysis. Prioritization of user requirements. Identification of user requirements using objects of activity. Requirements overlap and ambiguity. Validity of requirements. Requirements testability.				6			8	8	Individual studies of Literature ([1] Chapter 17), Individual project, labs in computer classrom.	
Validation of user requirements, the review of user requirements. Prototyping and user requirements. Approvement of user requirements.				6			8	8	Individual studies of Literature ([1] Chapter No. 5), Individual project, labs in computer classrom.	
Requirements management. Constant and changing requirements. Requirements change management. Requirement traceability.	2			4			6	8	Individual studies of Literature ([1] Chapter No. 9), Individual project, labs in computer classrom.	
Computer-aided requirements specification tools and technologies	2			2			4	12	Individual project, labs in computer classrom. atlikimas.	

Consultation				2		2	8	
Final Exam					2	2	10	
Iš viso	16		32	2	2	52	78	

Assesment strategy	Comp arativ e weigh	Date of examina tion	Assesment criteria
	t perce ntage		
Practical works, Individual project (PW)	40%	9th and 13th week	Laboratory works and their defense; practical exercises performed by the lecturer's instructions in the class. Each work is graded. At the end of the semester prepared workshops report. Assessed in grades 1-10 rating scale: 10-9: Excellent knowledge and skills. Evaluation level. 90-100% correct answers. 8-7: Good knowledge and skills may be minor errors. Synthesis level. 70-89% of correct answers. 6-5: The average knowledge and skills, there are errors. Level of analysis. 50-69% of correct answers. 4-3: Knowledge and skills are below average, the (material) errors. Knowledge application level. 20-49% of correct answers. 2-1: Does not meet minimum requirements. 0-19% of correct answers.
Midterm exam (M)	20%	9th week	 1-4 Topics from the list of topics listed above. Assessed in grades 1-10 rating scale: 10-9: Excellent knowledge and skills. Evaluation level. 90-100% correct answers. 8-7: Good knowledge and skills may be minor errors. Synthesis level. 70-89% of correct answers. 6-5: The average knowledge and skills, there are errors. Level of analysis. 50-69% of correct answers. 4-3: Knowledge and skills are below average, the (material) errors. Knowledge application level. 20-49% of correct answers. 2-1: Does not meet minimum requirements. 0-19% of correct answers.
Exam (E)	40%	At session time	 The exam consists of questions from all the course material. Assessed in grades 1-10 rating scale: 10-9: Excellent knowledge and skills. Evaluation level. 90-100% correct answers. 8-7: Good knowledge and skills may be minor errors. Synthesis level. 70-89% of correct answers. 6-5: The average knowledge and skills, there are errors. Level of analysis. 50-69% of correct answers. 4-3: Knowledge and skills are below average, the (material) errors. Knowledge application level. 20-49% of correct answers. 2-1: Does not meet minimum requirements. 0-19% of correct answers.

Final mark: PW*0.	4+M*0.2	+E*0.4	

Author	Year	Title	Number of periodical publication or publication Volume	The place of publication and publisher or online link
Required reading				
S. Robertson, J. Robertson	2012	Mastering the Requirements Process: Getting Requirements Right (Third edition)	ISBN: 0321815742	Addison-Wesley Professional.
R. R. Young	2007	The Requirements Engineering Handbook	ISBN: 1580532667	Artech House Publishers.
Additional sources				
G. Kotonya, I.Sommerville	2001	RequirementsEngineering:Processes and Techniques.	ISBN-10: 0471972088	Wiley.
D. C. Hay	2011	Requirements Analysis. FromBusinessViewsArchitecture		Prentice-Hall PTR.
E. Gottesdiener	2002	Requirements by Collaboration: Workshops for Defining N	ISBN-10: 0201786060	Addison-Wesley Professional.