Course unit title	Code
E-services for business management algorithms	

Annotation
The principles of designing algorithms for the provision of e-services for business are analysed, the methods of analysis of business requirements are distinguished, the ways of developing business management systems and smart service algorithms are teached, the course provides the competences to design the management algorithms and create systems for the provision of e-services in selected business areas

Lecturer(s)	Department, Faculty
Coordinating: Prof. dr. Dalė Dzemydienė **Other:**	Šiauliai Academy

Study cycle	Type of the course unit
First cycle studies	Compulsory

Mode of delivery	Semester or period when it is delivered	Language of instruction
Face-to-face, distance, blended learning	5 semester	Lithuanian/English

Requisites	
Prerequisites: Algorithms and their complexity, Procedural and object-oriented programming, Databases, Specification of system requirements, Web programming	**Co-requisites (if relevant):**

Number of ECTS credits allocated	Student's workload (total)	Contact hours	Individual work
5	133	56	77

Purpose of the course unit: programme competences to be developed		
The aim of the subject is to develop the ability to analyze, design and implement management algorithms of e-services for business, to integrate them with business functions and data processing business management systems.		
Learning outcomes of the course unit	**Teaching and learning methods**	**Assessment methods**
Students will be able to understand the basic principles of designing the e-services for business and business processing algorithms and design possibilities, and will know their importance	Lecture, discussion, analytical analysis of literature, case study and presentation of results	Report presentation, Exam Performance of practical computer work. Exam
Will be able to analyze the require-ments of e-services for business, the functions of e-services design systems, their advantages and disadvantages, will be able to choose suitable tools for the realization of algorithms of business	Interactive lecture, discussion, analytical analysis of literature, case study and presentation of results	Performance of practical computer work tasks. Exam

e-services, ensuring modern business needs.		
Will be able to create e-services for business algorithms and implement them, analyze user needs, security assurance, technical requirements, will be able to perform testing and evaluation of e-services for business systems and their components.	Lecture, discussion, analytical analysis of literature. Individual or group project	Individual or group project. Exam
Will be able to design e-service systems in selected applied business areas, prepare individual or group projects, present results, communicate and discuss	Lecture, discussion, analytical analysis of literature. Individual or group project	Individual or group project. Exam

Course content: breakdown of the topics	Contact hours							Individual work: time and assignments	
	Lectures	Tutorials	Seminars	Workshops	Laboratory work	Internship/work placement	Contact hours, total	Individual work	Assignments
1. The concept of e-services for managing business processes, the concept of algorithms and their design possibilities.	2				2		**4**	**4**	Analysis and discussion of literature sources
2. Algorithmization of business processes	2				2		**4**	**4**	Analysis of literature sources, presentation of results
3. Analysis of business e-services algorithms: ERP, CRM, SCM business algorithms	2				2		**4**	**8**	Analysis and discussion of literature sources, case studies, e-service algorithm design for business services
4. Systematic design to ensure the management processes of the smart services of business enterprise.	2				2		**4**	**4**	
5. Analysis of the structure of business management systems and e-services integration algorithms	2				2		**4**	**6**	Case analysis, presentation, design of e-service implementation scenarios
6. Analysis and design of business function processing algorithms, implementation modules, and business enterprise resource planning and management algorithms	2				4		**6**	**4**	Analysis of literature sources, performance of tasks, preparation of an individual or group project, presentation of requirements
7. E-commerce platforms and their application to the realization of e-services	2				2		**4**	**4**	Case study presentation, discussing about e-service

Topic								Self-study
								implementation projects
8. E-commerce platforms and their application in e-commerce. for the implementation of service systems.	4			4		**8**	**4**	Analysis of literature sources, presentation of results of computer practical tasks
9. Innovations in business management. Their search and meaning. An overview of the cloud, the Internet of Things and other innovative technologies	2			2		**4**	**6**	Preparation of individual or group project
10. E-service management algorithms, data structures, interoperability and security requirements	2			2		**4**	**4**	Analysis of literature sources, presentation of task results
11. Presentation of e-service projects for business with algorithms and data structures and interoperability	4			4		**8**	**10**	Presentation of individual or group project results
12. Course overview, exam preparation	2					**2**	**19**	Consultation
Total	**28**			**28**		**56**	**77**	

Assessment strategy	Weight %	Deadline	Assessment criteria
Completion of computer practical tasks	20	During the Semetre	The results of the given tasks are evaluated in a 10-point system
Individual or group project	30	End of Semetre	The quality of performance, compliance with requirements and the ability to correctly convey design structures are assessed in a 10-point system
Exam	50	End of Semetre	Examination of theoretical knowledge based on pre-presented questions covering the course material, correctness, completeness, accuracy, innovativeness of the answers are evaluated, in a 10-point system

Author	Publishing year	Title	Issue of a periodical or volume of a publication; pages	Publishing house or internet site
Required reading				
Dalė Dzemydienė, Ramutė Naujikienė, Ramūnas Dzindzalieta	2016	Elektroninių paslaugų įgyvendinimo sprendimai.		Registrų Centras. Vilnius.: https://repository.mruni.eu/handle/007/16716
M. A. Cusumano, A. Gawer, D. B. Yoffie.	2019	The Business of Platforms: Strategy in the Age of Digital Competition, Innovation,		Amazon com
Zhaohui Wu, Shuiguang Deng, Jian Wu	2015	Service Computing. Concepts, Methods and Technology		Elsevier, https://www.elsevier.com/books/service-computing-concept-method-and-technology/wu/978-0-12-802330-3
Recommended reading				
Kenneth C. Laudon, New York University	2020	Essentials of MIS, Global Edition, 14th Edition		Pearson: https://www.pearson.com/uk/educators/higher-

Jane P. Laudon, New York University				education-educators/program/Laudon-Essentials-of-MIS-Global-Edition-14th-Edition/PGM2903548.htm
Andriole, Stephen J.	2016	Best practices in business technology management.		CRC Press: Taylor & Francis Group.
I. Khnab, et al.	2022	Presentation of Cloud Computing. A Seminar of Cloud Computing		https://www.slideshare.net/Agarwaljay/cloud-computing-simple-ppt-41561620