

Official Length of Programme, Mode of study

240 credits, full-time studies, four year studies

Qualification Degree

Bachelor of Computing

Field of Study

Informatics Engineering

Faculty

Faculty of Informatics

State Code

6121BX014

Head of the Field's Study Programmes

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Objective(s) of a Study Programme:

To prepare specialists, having theoretical and practical knowledge of computers, their systems, communication networks, real-time information processing systems' development, deployment and maintenance, are able to design and develop computerized systems, to perform engineering tasks in enterprises.

Access to Professional Activity

The graduate can work as a systems analyst, programmer, software and hardware developer and maintenance specialist, computer systems designer and developer, information technology (IT) analyst, enterprise IT solutions developer and project manager in various private companies and public organizations, which develop and use IT solutions.

Become the most



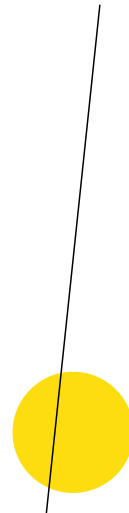
Informatics Engineering

	Module code	Module title and description	ECTS credits		Module code	Module title and description	ECTS credits	
1 Semester	P175B505	Computer Graphics	6		5 Semester	T120B145	Computer Networks and Internet Technologies	6
	P175B117	Fundamentals of Object-Oriented Programming 1	9			T120B132	Digital Signals and Circuits	6
	T120B196	Introduction to Studies of Informatics	9			T120B143	Enterprise Computer Systems Development Platforms	3
	P130B001	Mathematics 1	6			T120B129	Information Technology Security	6
							Optional Subjects 2019	3
						Subjects of Specializations (Select One)		
							Information Technologies	6
							Internet of Things Technologies	6
2 Semester	P175B502	Fundamentals of Object-Oriented Programming 2	6	6 Semester	T120B120	Cyber security	6	
	P130B002	Mathematics 2	6		T120B195	Project of Information Technology Product Development	12	
	P190B101	Physics 1	6					
	P175B100	The First Principles of Digital Logic	6		Subjects of Specializations (Select One)			
	Electives of Philosophy and Sustainable Development 2019 (Select One)						Information Technologies	12
	H120B111	Media Philosophy	6				Internet of Things Technologies	12
S183B001	Sustainable Development	6						
3 Semester	H570B104	Academic and Technical Communication in English (Level C1)	6	7 Semester	T150B016	Introduction to Materials Science	3	
	P175B126	Basics of Data Structures	6		T120B111	Real Time Systems	3	
	P175B125	Computer Architecture	6				Optional Subjects 2019	6
	P170B008	Discrete Structures	6		Electives of Socioeconomic Environment Knowledge 2019 (Select One)			
	P160B003	Theory of Probability and Statistics	6		S180B103	Engineering Economics	6	
					S210B003	Sustainable Human Development	6	
					Subjects of Specializations (Select One)			
					Information Technologies	12		
					Internet of Things Technologies	12		
4 Semester	P175B602	Databases	6	8 Semester	T000B204	Final Degree Project	15	
	P170B400	Design and Analysis of Computer Algorithms	6		T000B183	Final Practice	15	
	P175B304	Operating Systems	6					
	P175B314	Software Engineering	6					
		Optional Subjects 2019	6					

Learning outcomes:

Knowledge and Understanding

- A1** To have knowledge of mathematical conceptions and principles, differential and integral computing and differential equations solving, probability theory, fundamentals of statistics, linear algebra, numerical analysis.
- A2** To have humanitarian and social science knowledge to achieve the goals of engineering profession and for the broader erudition and philosophical approach cultivation.
- A3** To have fundamental knowledge about natural laws, phenomenon and their quantitative expression, knowledge of materials and elements used in engineering and their properties.
- A4** To know and systematically understand the concepts and the basics of theory and applications of algorithms and their analysis, programming methods and technologies, and the processes of software systems development.
- A5** To have knowledge of methods and technologies used for the development of information processing systems, human-machine interaction, application of internet technologies.
- A6** To know and understand digital logic, computer elements, computer architectures, operating systems, computer networks, and virtualization technologies and methods.
- A7** To have knowledge of information technologies and their applications, administration and maintenance of organization computer systems, and information security methods.
- A8** To have knowledge of computer systems engineering, real-time and embedded systems development methods, processes and technologies.



Engineering Analysis

- B1** Formulate, analyze and evaluate problems and engineering tasks related to computer systems development and information technologies application, know and understand the most recent and significant informatics engineering scientific research and development problems and tendencies.
- B2** Select and apply appropriate methods, experimental, production, analytical and modeling tools for the solution of engineering tasks and problems.

Engineering Design

- C1** Design computer systems, using modern design processes, methods and tools, and manage design process.

Investigations

- D1** Find and analyze information from various sources, including papers, electronic media, databases and other sources, theoretically understand new and emerging technologies.
- D2** Perform experiments related to the engineering activities, analyze, assess and interpret the results of practical applications and scientific experiments, formulate conclusions and recommendations.

Engineering Practice

- E1** Implement, deploy, maintain and improve computer systems, their software and hardware, evaluate ethical, social, economic and security aspects of chosen solutions.
- E2** Prepare standard engineering documentation of computer system.
- E3** Analyze, design, implement, deploy and maintain computer systems of organizations, their software and hardware, using knowledge and understanding of computers and their systems, computer networks, programming technologies, information processing systems and information security.
- E4** Analyze, design, deploy, maintain and improve real-time and embedded systems, computer systems hardware and middleware, using computer aided analysis, modeling, design and development tools and methods.

Engineering Practice

- F1** Present informatics engineering problems and solutions for the specialists as well as broad auditorium in written and oral form, using correct Lithuanian and at least one foreign language.
- F2** Communicate with problem solving project group members, work as a member or leader of project group.

Informatics Engineering



Learning outcomes:

- F3** Self-study and improve constantly, formulate and achieve defined goals in the field of informatics engineering and contiguous fields, using management and organizational work knowledge.
- F4** Use legal and regulatory documents.
- F5** Understand the influence of the developed information technologies and computer systems' solutions to the society and environment, understand the responsibility for the engineering activities.

