VIDZEMES AUGSTSKOLA

FACULTY OF ENGINEERING
STUDY COURSE DESCRIPTION

Course Title:	**Introduction to specialty**				
Course code (LAIS):					
Study programme:	**Information technology**				
Level of Study programme:	☐ 1st level professional higher education				
	☒ Professional Bachelor				
	☐ Professional Master				
	☐ Academic Master				
	☐ PhD level				
Type of Study programme:	☒ Compulsory course (Part A)				
	☐ Professional specialization courses (Part B, compulsory)				
	☐ Professional specialization optional courses (Part B, optional)				
	☐ Elective courses (Part C)				
Course Workload:	**Credits**	**ECTS**	**Academic hours**	**Contact hours**	**Independent work hours**
Full time	2	3	80	32	48
Part time	2	3	80	10	70
Course Author/ Tutor:	**Sarma Cakula**				
	Professor, Ph.D				
	e-mail: sarma.cakula@va.lv				
	Consultation: according to the schedule for each semester				
Course Author/ Tutor:	**Dāvis Ābols**				
	Guest Lecturer, Mg.sc.comp.				
	e-mail: davis.abols@va.lv				
	Consultation: by individual agreement				
Study Form:	Full time studies/ Part time studies				
Study year, semester:	First study year, first semester				
Language:	Latvian, English				
Prerequisites for the Course:	-				
Course Summary:	The aim of the course is to acquaint students with basic knowledge about the theoretical basics of programming, counting systems and final automats. To provide an insight into the topicalities of the IT industry, as well as to acquaint students with the resources available at Vidzeme university of Applied Sciences. To acquaint students with the operating environment and processes of IT companies.				
Assessment:	-				
Requirements for Credits:	1. Practical works prepared and submitted over in time; 2. It is obligatory to attend seminars and workshops. If missed seminars or workshops it is possible to recover overdue by performing an individual tasks; 3. Create research work and presentation on one of the IT areas and actively participate in the seminar; 4. Obtained a positive evaluation (at least 4 points) in the homework's;				
Abiding by the Academic Ethics	Students must abide by the academic and research ethics, Vidzeme University of Applied Sciences Ethics Regulations, incl.: – study papers must be independently developed; – the study work should reference all statements, ideas and data used that have been authored by someone else; – appropriate data acquisition methods should be used in the acquisition of data, the research ethics must be respected, empirical data must be collected independently and cannot be distorted or falsified; – the examination must be carried out by the student independently, without the use of supporting materials and/or consultations with other students, unless the lecturer states otherwise. In the event of non-compliance with the academic and research ethics, punishment is imposed in accordance with the ViA Ethics Regulations and the study course must be re-				

	taken, unless the punishment is extramarital.	
Learning Outcomes; the evaluation methods and criteria	**Learning Outcomes**	**The evaluation methods and criteria**
	Knowledge	
	Understanding of Professional Standards and requirements according to the study program	Visiting and mastering lectures, practical works
	Understanding of programming theories foundations	Visiting and mastering lectures, practical works
	Understanding of IT companies and employee qualifications according to the company specifics	Visiting and mastering lectures, practical works
	Skills	
	Understand the standard of professions and the corresponding ones study program requirements	Attendance of lectures
	Understand counting systems and transitions between them	Test
	Be able to choose appropriate literature and sources of information	Evaluation of the presentation
	Understand final automats	Test
	Competency	
	Ability to orientate in the field of IT and IT applications	Evaluation of the presentation
	Ability to prepare documentation by acquaintance with documentation standards.	Evaluation of the presentation
	Will be able to express their opinion in seminars	Evaluation of the presentation
	Ability to communicate in the field of IT	Evaluation of the presentation
Course Compulsory literature:	1. June Jamrich Parsons, Dan Oja. New Perspectives on Computer Concepts 2016. Cengage Learning, 2016 2. Samary Baranov,Finite State Machines and Algorithmic State Machines: Fast and Simple Design of Complex Finite State Machines, Amazon.com Services LLC, 2018 3. Robert I. Soare Turing Computability: Theory and Applications (Theory and Applications of Computability), Springer; 1st ed. 2016	
Course additional literature:	Charles Petzold. Code: The Hidden Language of Computer Hardware and Software. Microsoft Press 2000, ISBN 0-7356-0505-X	

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	Internet resources: • https://kursors.lv/ • https://www.theverge.com/ • https://www.techradar.com/ • https://thenextweb.com/
Course confirmation date:	
Date of course description update:	

Study Course Plan for Full Time Students:

Date	Theme	Academic hours		Study Form/ Organization of independent work of students and task description
		Contact hours	**Independent work hours**	
The date is specified before the implementation of the course	Introduction to the study course. Professional standard, scientific degree and qualification. University submission standards and current information.	**1**	**2**	Lecture, independent work studying literature
	Introduction to IT applications usage in economy, education, culture, health, etc. areas	**1**	**2**	Lecture, independent work studying literature
	Excursion around University laboratories and acquaintance with available equipment and technologies	**2**	**2**	Study tour
	Research work (presentation)	**4**	**10**	Seminar, presentations
	Starting a new IT business-experience, problems, success	**2**	**6**	Lecture, group work, independent work while studying literature
	Experience in international IT business - success, difficulties, goal orientation	**2**	**6**	Lecture, group work, independent work while studying literature
	Getting acquainted with the IT business environment	**12**	**4**	Study tour
	Counting systems	**4**	**8**	Lecture, group work, independent work while studying literature
	Final automats	**4**	**8**	Lecture, group work, independent work while studying literature
	Hours total:	***32***	***48***	

Study Course Plan for Part Time Students:

Date	Theme	Academic hours		Study Form/ Organization of independent work of students and task description
		Contact hours	**Independent work hours**	
The date is specified before	Introduction to the study course. Professional standard, scientific	**1**	**3**	Lecture, independent work

the implementation of the course	degree and qualification. University submission standards and current information.			studying literature
	Introduction to IT applications usage in economy, education, culture, health, etc. areas	**1**	**3**	Lecture, independent work studying literature
	Excursion around University laboratories and acquaintance with available equipment and technologies	**0**	**4**	Study tour
	Research work (presentation)	**0**	**14**	Seminar, presentations
	Starting a new IT business-experience, problems, success	**2**	**6**	Lecture, group work, independent work while studying literature
	Experience in international IT business - success, difficulties, goal orientation	**2**	**6**	Lecture, group work, independent work while studying literature
	Getting acquainted with the IT business environment	**0**	**6**	Study tour
	Counting systems	**2**	**14**	Lecture, group work, independent work while studying literature
	Final automats	**2**	**14**	Lecture, group work, independent work while studying literature
	Hours total:	***10***	***70***	