VIDZEMES AUGSTSKOLA

FACULTY OF ENGINEERING
STUDY COURSE DESCRIPTION

Course Title:	**Javascript programming**					
Course code (LAIS):	*The course will be registered in the study administration system after accreditation*					
Study programme:	**Information technologies**					
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	32	48
Course Author/ Tutor:	**Artūrs Jansons**					
	Guest lecturer, Bc.sc.comp					
	e-mail: arturs.jansons@kalmars.lv					
	Consultation: according to the schedule for each semester					
Study Form:	Full time studies/ part time studies					
Study year, semester:	3rd year 5th semester					
Language:	Latvian, english					
Prerequisites for the Course:	-					
Course Summary:	The purpose of the study course is to provide theoretical and practical knowledge in the JavaScript programming language. During the course, students will learn the syntax of the JavaScript language, data types, the correct use of built-in methods, as well as the development of objects and functions. In order for students to fully learn web technologies and the possibilities provided by JavaScript, basic HTML and CSS theoretical and practical knowledge will be provided in addition.					
Assessment:	Lectures, homework, tests and exam.					
Requirements for Credits:	1. All homework must be completed. The grade of completed homework is reduced for each number of days missed. 2. The test must be completed and handed in on time. 3. The exam must be completed and passed on time. The final evaluation of the study course according to the 100-point system consists of the following average arithmetical evaluations according to their intended proportion in the final evaluation: 1. Submission of practical class work - constitutes 10% of the final grade. 2. Participation in lectures - constitutes 10% of the final grade. 3. Tests - make up 30% of the final grade. 4. Exam - makes up 50% of the final grade. In order to be admitted to the exam, a student must submit and obtain a successful assessment in all control papers. In order to pass the course successfully, you must obtain at least 40% of the total percentage. The submitted works will be evaluated in a 10-point system, taking into account the following criteria: excellent (10) – knowledge, skills and competence exceed the knowledge to be acquired during the course; excellent (9) – knowledge, skills and competence fully correspond to the knowledge to be acquired during the course; very good (8) – fully fulfilled the requirements of the task, however, there is not a deep enough understanding of certain nuances of its execution;					

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<table>
<tr><td></td><td colspan="2">good (7) – in general, the requirements of the task are met, however, sometimes there is an inability to use the acquired knowledge in accordance with the given task;
almost good (6) – the requirements of the task are fulfilled, however, at the same time, an insufficiently deep understanding of the task and the inability to use the acquired knowledge can be detected;
average (5) – requirements of the task are met, however insufficient knowledge of some skills in the execution of the task and inability to use the acquired knowledge can be found;
almost average (4) - poorly fulfilled task requirements, however, insufficient understanding of basic concepts can be detected, there are significant difficulties in the practical use of the acquired knowledge;
weak (3) – knowledge is superficial and incomplete, the student is unable to use it in the performance of a specific task;
very weak (2) – has superficial knowledge only of certain problems, most of the requirements of the task have not been mastered;
very, very weak (1) – there is no understanding of the basic problems of the task, there is almost no knowledge of the topics covered in the course</td></tr>
<tr><td>Abiding by the Academic Ethics</td><td colspan="2">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 exmatriculation.</td></tr>
<tr><td rowspan="10">Learning Outcomes; the evaluation methods and criteria</td><td>Learning Outcomes</td><td>The evaluation methods and criteria</td></tr>
<tr><td colspan="2">Knowledge</td></tr>
<tr><td>Knowledge of JavaScript syntax, variables (local and global) and data types, their meaning and specifics of application.</td><td>Lectures, practical work</td></tr>
<tr><td>Knowledge of JavaScript operators and basic arithmetic operations</td><td>Lectures, practical work</td></tr>
<tr><td>Knowledge of functions, events, methods, their meaning, structure, application and correct calling in the code.</td><td>Lectures, practical works, homework assignments</td></tr>
<tr><td>Knowledge of the meaning, structure and use of objects.</td><td>Lectures, practical work</td></tr>
<tr><td>Knowledge of branching and cyclic constructions.</td><td>Lectures, practical work</td></tr>
<tr><td>Knowledge of strings, arrays and their operations</td><td>Lectures, practical work</td></tr>
<tr><td>Knowledge of the basics of HTML, CSS and jQuery and their use in combination with the JavaScript programming language.</td><td>Lectures, practical works, homework assignments</td></tr>
<tr><td>Knowledge of data processing and extraction using APIs.</td><td>Lectures, practical works, homework assignments</td></tr>
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	Knowledge of adding and using various libraries	Lectures, practical works, homework assignments
	Skills	
	Be able to consistently develop functional JavaScript code	Practical works, homework assignments and tests.
	Be able to independently develop functions, use various JavaScript built-in methods	Practical works, homework assignments and tests.
	Be able to process and manipulate data independently	Practical works, homework assignments and tests.
	Be able to use HTML and CSS in combination with the JavaScript programming language	Practical works, homework assignments and tests.
	Competency	
	Able to apply correct terminology of JavaScript programming solutions. Choose appropriate solution techniques for the execution of the specific task.	Practical work, homework and exam
	Able to independently develop a functional web page using JavaScript, HTML and CSS.	Practical work, homework and exam
	Able to solve basic problems of JavaScript and HTML programming solution development, testing and debugging	Practical work, homework and exam
Course Compulsory literature:	1. Arvis Lācis, JavaScript izmantošana mājaslapu veidošanā, 2011: http://www.elejasvsk.lv/dokumenti/javascript.pdf 2. What is JavaScript: https://developer.mozilla.org/en-US/docs/Learn/JavaScript/First_steps/What_is_JavaScript 3. Izveide.lv, Kas ir HTML: https://www.izveide.lv/html/ 4.What is HTML?: https://www.w3schools.com/whatis/whatis_html.asp 5. Faizan Parvez, Introduction to CSS | CSS tutorial for Beginners, 01.08.2021, https://www.mygreatlearning.com/blog/css-tutorial	
Course additional literature:	1. Dillion Megida, What is JavaScript? A Definition of the JS Programming Language, 09.03.2021, https://www.freecodecamp.org/news/what-is-javascript-definition-of-js/ 2. JavaScript Tutorial: https://www.w3schools.com/js/default.asp 3. Christina Kopecky, What is jQuery? Learn the most popular JavaScript library, 01.10.2020, https://www.educative.io/blog/what-is-jquery-javascript-library	
Course confirmation date:	08.12.2022	
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 course and JavaScript programming. Introduction and basics of the JavaScript environment	**2**	**2**	Theoretical lecture. Practical work covering several topics

	Variables, expressions, operators and conditional execution	**2**	**4**	Theoretical lecture. Practical work covering several topics
	Objects and inheritance	**2**	**4**	Theoretical lecture. Practical work covering several topics
	Branches, arrays and loop methods	2	4	Theoretical lecture. Practical work covering several topics
	Functions, methods and their use.	3	4	Theoretical lecture. Practical work covering several topics
	Test on data types, objects and functions.	4	4	Test
	Basics of HTML and CSS	2	4	Theoretical lecture. Practical work covering several topics
	JavaScript events (event) and using the JQuery library	3	4	Theoretical lecture. Practical work covering several topics
	Test paper on the application of JavaScript, HTML and CSS	4	4	Test
	Adding and using JavaScript libraries (ChartJS and Bootstrap).	2	4	Theoretical lecture. Practical work covering several topics
	Data acquisition and visualization.	2	4	Theoretical lecture. Practical work covering several topics
	Exam	4	6	Exam, practical work
	Hours total:	***32***	***70***	

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 the implementation of the course	Introduction to the course and JavaScript programming. Introduction and basics of the JavaScript environment. Variables, expressions, operators and conditional execution	**2**	**10**	Theoretical lecture.
	Objects and inheritance. Branches, arrays and loop methods	2	10	Theoretical lecture.
	Basics of HTML and CSS	2	10	Theoretical lecture.
	Using JavaScript events	2	10	Theoretical lecture.
	Adding and using Bootstrap libraries	1	10	Theoretical lecture.
	Exam	1	20	Exam
	Stundu skaits kopā:	***10***	***70***	