

Subject code: IFI7102	<b>Computer Skills and Programming Update</b>	
3 ECTS	<b>contact lessons: 21</b> <b>independent work: 57</b>	<b>Study semester:</b> A2
Objective:	To bring particular computer and programming skills to the level required by the studies. To create opportunities for the development of Web-based interactive pages. To introduce programming basis and object-oriented principles on example of javascript language.	
Course description: (incl. description of the content of independent work in accordance with the determined amount of independent work)	The course is an update to particular software skills, hardware and network know-how for students outside of computer science. Includes the practical design and set up of web pages (HTML, CSS) and introduction to basic programming, especially Javascript.	
Learning outcomes:	Course participant has basic skills in computer use and programming. Using them, he can continue his studies in other courses which require knowledge about programming	
Form of evaluation:	Pass/fail assessment.  Each student must pass the assessment, which consists of individual homework defence and practical test. Test includes tasks with web-page creation using HTML, css and javascript.	
Lecturers:	Associate Professor Erika Matsak	
Title in Estonian:	Arvuti kasutamise ja programmeerimise tasanduskursus	
Prerequisite subjects:	-	
Compulsory literature:	<a href="http://www.tlu.ee/~matsak/skills/">http://www.tlu.ee/~matsak/skills/</a>	
Replacement literature:	It is possible to use some other tutorials and help materials in internet	
Requirements for participating in studies and taking exams/assessments	<ul style="list-style-type: none"> <li>- At least 90% of homework exercises must be submitted and correct</li> <li>- every student must defend the submitted homework</li> </ul>	
Requirements for independent work	Practical exercises as homework assignments	
Exam evaluation criteria or minimum level necessary to pass assessment	The assessment test can be passed with at least 60% correct answers. Students may use all kind of materials (can be stored for example to USB), but internet connection will be disconnected.	

<p>Additional information on course content, division of course by topics, incl. times of contact lessons taking place in the form of seminar.</p>	<p>1. Course introduction. Notepad++, ftp, HTML language, CSS</p>
	<p>2. Javascript. Syntax. Compiling. Variables, primitive data types; Compound statements: if- else, switch, loop; comparison, arrays, arithmetic operators</p>
	<p>3. Forms in HTML, button. Javascript. Functions, using parameters with functions, return statement, calling functions from another function. Global and local variables. Event handlers, onmouseover, onload.</p>
	<p>4. Arrays. Classical algorithms for two-dimensional arrays: diagonals, columns or rows summa, minimum, maximum, even and odd numbers.</p>
	<p>5. Javascript. Objects. Constructors. Methods. Arrays properties and methods [concat, join, pop, push, reverse, shift, slice, sort, splice, unshift]. Image, colors etc arrays. The JavaScript Object Hierarchy.</p>
	<p>6. Math Object. Data Object. Operating with HTML form elements. Simple form validation.</p>
	<p>7. DOM (Document Object Model). Objects properties, methods, reference</p>