

IFI6011 .DT	Web Programming / Veebiprogrammeerimine		
4 EAP	Load of contact hours: 56	Study semester: Spring	Exam
Objectives:	Goal of the course is to provide introduction to web programming through understanding opportunities and dangers of creating web applications.		
Course outline:	<p>Topics covered:</p> <p>Concepts and tools of creating web applications. Web server programming. Technical possibilities and technology used. PHP. From client to server side data management. Designing and creating data tables, connecting tables. SQL commands. Control of the user input. Authentication and authorization. JavaScript tools and options. Structuring the application logic. User stories. Web prototypes. Design for web application.</p> <p>Study consists of practical exercises, collaborative whiteboard thinking, group work and individual tasks. Homework is given on majority of studied topics.</p>		
Learning Outcomes:	<p>In the end of the course students:</p> <ul style="list-style-type: none"> • Acknowledges the possibilities of web programming • Acknowledges the dangers (security) of web programming • Can create static web pages • Can develop web applications with one data table • Can develop web applications with many connected data tables • Can develop web applications with using user authentication 		
Assessment Methods:	The course will end with the exam. 2/3 of the result is formed by individual and group tasks. Exam will take place in the examination period (May). It is mandatory to actively take part in theoretical seminar to pass the subject.		
Teacher:	Romil Rõbtšenkov		
Subject name in Estonian:	Veebiprogrammeerimine		
Prerequisite subject(s):	None		
Compulsory Literature:	<p>(in Estonian) “Veebiprogrammeerimise konspekt (autor Jaagup Kippar)”, http://minitorn.tlu.ee/~jaagup/kool/java/loeng/veebipr/veebipr1.pdf</p> <p>(in Estonian) “Veebiprogrammeerimise e-kursus (autor Jaagup Kippar)” http://www.e-ope.ee/repositoorium/?@=6f6m-euni_repository_10890</p>		

	(in English) http://www.w3schools.com/php/default.asp
Replacement Literature:	None
Participation and exam requirements:	<p>Presence in lessons is not checked, but active participation in the lessons promotes the acquisition of material and work necessary for successfully passing the exam.</p> <p>To pass all the required assessments need to be done – applications developed and explained (if necessary defended), test, participated in seminar.</p> <p>If necessary, the agreement with the teacher can be made to replace some of the homework required with a suitable solution with similar complexity.</p>
Independent work:	<p>Course Assignments</p> <ul style="list-style-type: none"> * Web application with multiple connected pages * Web application with data management (connected with database) * User creation and authentication * Web application with multiple connected datatables * Seminar * Exam <p>Exam</p> <p>In the beginning of the exam every groups presents their group work. Then every student picks a ticket with three tasks described.</p> <p>For passing exam:</p> <ol style="list-style-type: none"> 1) all home and group works have to be done and defended 2) additionally at least one exam point has to be completed <p>One exam ticket task completed equals with grade C Two exam ticket task completed equals with grade B Three exam ticket task completed equals with grade A</p> <p>Quality of done home and group work can either increase or decrease grade by one letter.</p>
Grading criteria scale or the minimal level necessary for passing the subject:	<p>Grading criteria:</p> <p>1. criteria</p> <ul style="list-style-type: none"> • Acknowledges the opportunities of creating web applications • Acknowledges the dangers of creating web applications <p>A – Student can handle previous topics and is also able to instruct fellow students.</p>

	<p>B - In addition to the previous: plan, and with the help of the teacher. is able to test the web application usability and security.</p> <p>C - Can analyze web application structure, including the security side.</p> <p>D - Can describe the technical possibilities created by the user, and their background. Can mention the most common threats.</p> <p>E - Can name options.</p> <p>2. criteria</p> <ul style="list-style-type: none"> • Can create static web pages • Can develop web applications with one data table • Can develop web applications with many connected data tables • Can develop web applications with using user authentication <p>A - Can coordinate and manage of developing appropriate web application for the end-user.</p> <p>B - As a team member can design and make the database schema with the interface of the web application.</p> <p>C - Can prepare and develop web application with data management.</p> <p>D - Can develop web page with administration side.</p> <p>E – In the end of the course student can design and develop web application using individual data tables.</p>												
Information about the course:	<table> <tr> <th>Date</th><th>Covered topics</th></tr> <tr> <td>1. week – 04.02 (10:15-13:45)</td><td>Introduction to web programming. Using Github and git version control.</td></tr> <tr> <td>2. week – 11.02 (10:15-13:45)</td><td>Creating web application from separate pages.</td></tr> <tr> <td>3. week – 18.02 (10:15-13:45)</td><td>Using data tables. MySQL. PHPMyAdmin.</td></tr> <tr> <td>4. week – 25.02 (10:15-13:45)</td><td>Connection data table with web application. Sending data to database.</td></tr> <tr> <td>5. week – 03.03</td><td>Data sorting and filtering.</td></tr> </table>	Date	Covered topics	1. week – 04.02 (10:15-13:45)	Introduction to web programming. Using Github and git version control.	2. week – 11.02 (10:15-13:45)	Creating web application from separate pages.	3. week – 18.02 (10:15-13:45)	Using data tables. MySQL. PHPMyAdmin.	4. week – 25.02 (10:15-13:45)	Connection data table with web application. Sending data to database.	5. week – 03.03	Data sorting and filtering.
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	6. week – 10.03 (10:15-13:45)	Data management.
	7. week – 17.03 (10:15-13:45)	Administering data
	8. week – 31.03 (10:15-13:45)	Introducing object oriented programming. Using classes.
	9. week – 07.04 (10:15-13:45)	Using connected data tables.
	10. week – 14.04 (10:15-13:45)	User creation and authentication.
	11. week – 21.04 (10:15-13:45)	User interfaces of web applications. User stories.
	12. week – 28.04 (10:15-13:45)	Design of web applications, file structure. Responsive web applications-
	13. week – 05.05 (10:15-13:45)	Introduction to JavaScript.
	14. week – 12.05 (10:15-13:45)	Seminar.
	Exam – May	

School of Digital Technologies

Romil Rõbtšenkov

09.01.16