

## Assessment and subject description

<b>ÓbudA University</b> Kandó Kálmán Faculty of Electrical Engineering		Institute of Communication Engineering			
Subject name and code: <b>Informatics II KHXIA3ABNE</b>				Credits: 3	
Full-time, Spring Semester					
Course: Electrical Engineering					
Responsible:	Dr. Gyányi Sándor		Teaching staff:	Dr. Gyányi Sándor	
Prerequisites:					
Contact hours per week:	Lecture: 2	Class discussion: -	Lab hours: -	Tutorial: -	
Assessment and evaluation:	1 mid-semester test, repeat test if necessary, Exam: written (test) and oral if necessary				
<b>Subject description</b>					
<i>Aims:</i> To provide knowledge about computer networks and web applications.					
<i>Topics to be covered:</i> Infocommunication network basics. Web standards: HTML, XML, HTTP, CSS. Dynamic web content generation. Web development. Cascaded Style Sheets in details. Web forms. Client-side development. User interactions in web applications. Server-side web programming. Persistent data storage, databases.					
<b>Topics:</b>				<b>Week</b>	<b>Lessons</b>
Basics: information, data, file, encoding, decoding, data transfer. Web technologies: URI, URL, DNS, Domain names, HTML, http, TCP/IP, UDP/IP, ports.				1	2
HTML basics, documents, entities, tags, attributes, HTML versions, XML, inline and block elements.				2	2
Dynamic web contents_ pros and cons, web frameworks, server-side applications, data storage. Dynamic web content components and technologies: Apache, LAMP/WAMP, CGI, virtual host, PHP. Web development tools, IDEs, debuggers.				3	2
Cascaded Style Sheets syntax, components. Selectors, child selector, priority and specificity of rules. CSS units, properties, colors and other formatting attributes.				4	2
User interactions: Web forms. Defining forms, input fields, GET and POST methods. File uploads.				5	2
Client-side programming, Javascript and EcmaScript. Javascript components: variables, functions, objects, JSON syntax, arrays, dynamic function invocation, numbers and the Math object, string and date handling, events. Javascript and HTML cooperation.				6	2
Interactive web applications, timers, Document Object Model, Javascript DOM handling.				7	2
Server-side programming: PHP. PHP tags, variables, variable scopes, arrays, classes, objects, operators, functions.				8	2
Cookie handling, session management.				9	2
Server-side persistent data storage in PHP. Relational databases, SQL, data structures, fields.				10	2
PHP-MySQL cooperation, MYSQLI interface.				11	2

Development of a Content Management System (CMS). Designing components, models, functions.	12	2
Test.	13	2
Test (if necessary).	14	2

**Assessment and evaluation**

Attendance in class and lab is mandatory.

For the signature it is required an average grade 2 (pass mark) or better on mid-semester and/or repeat tests. Schedule:

	<b>Date</b>	<b>Length</b>	<b>Minimum result</b>	<b>Topics</b>
1. test	5. week	60 minutes	50%	Analog electronics (lecture 1-4).
2. test	13. week	60 minutes	50%	Digital electronics (lecture 6-12)
Last resort test	14. week	60 (120) minutes	50%	

**Examination:** Written (test) and oral if necessary.

<b>Percentage</b>	<b>Grade</b>
85 - 100	excellent (5)
70 - 84	good (4)
55 - 69	satisfactory (3)
50 - 54	pass (2)
0 - 49	fail (1)

**Learning material**

**Required material:**

**Suggested material:**