

Course Outline	
ISYS6211 Web based Application Development (2/2)	
Effective Date 01 February 2016	Study Program Computer Science Revision 0

1. Course Description

This course consists of website programming concepts and techniques for creating website. Topics and materials discussed in this class include: the introduction of website, HTML, CSS, JavaScript. Web-based Programming course gives student competency to choose appropriate programming language to develop website. This course is prerequisite for Advanced Web Based Programming.

2. Graduate Competency

Each course in the study program contributes to the graduate competencies that are divided into employability and entrepreneurial skills and study program specific outcomes, in which students need to have demonstrated by the time they complete their course.

BINUS University employability and entrepreneurial skills consist of planning and organizing, problem solving and decision making, self management, team work, communication, and initiative and enterprise.

2.1. Employability and Entrepreneurial Skills

Aspect	Key Behaviour

2.2. Study Program Specific Outcomes

Study Program Specific Outcomes
Graduates will be able to analyze, design and implement E-business technology and applications.

3. Topics

- Website - Introduction
- Understanding HTML, XHTML, CSS, JavaScript
- HTML - Basic
- HTML – Lists, Frames, Tables, and Links
- HTML - Colors, Images, and Multimedia
- CSS
- JavaScript - Introduction
- JavaScript - Functions and Objects
- JavaScript - Conditions, Loops, and Events
- JavaScript - Form Validation and Dialog Box
- JavaScript – Form Submission
- JavaScript - Advanced JavaScript Programming
- Review

4. Learning Outcomes

On successful completion of this course, student will be able to:

- LO 1: Explain website programming concepts
- LO 2: Choose appropriate programming language techniques to deal with the user requirements
- LO 3: Build website applications

5. Teaching And Learning Strategies

In this course, the lecturers might deploy several teaching learning strategies, including case studies, Demonstration, Project Work, Lecture, and Presentation.

6. Textbooks and Other Resources

6.1 Textbooks

1. Robin Nixon. (2014). **Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5)**. 04. O'Reilly Media. ISBN: 1491918667.
2. Julie C. Meloni. (2012). **Sams teach yourself HTML, CSS, and JavaScript : all in one**. 01. Sams Publishing. Indianapolis. ISBN: 9780672333323.
3. Jon Duckett. (2009). **Beginning HTML, XHTML, CSS, and JavaScript (Wrox Programmer to Programmer)**. 01. Wrox Press. ISBN: 0672329166.

The book in the first list is a must to have for each student.

6.2 Other Resources

1. <http://www.w3schools.com/css/default.asp>
2. <http://www.studygs.net/design.htm>
3. <http://www.w3schools.com/html/default.asp>
4. <http://www.w3schools.com/js/default.asp>
5. <http://www.w3schools.com/js/default.asp>
6. <http://www.w3schools.com/html/default.asp>
7. <http://www.w3schools.com/js/default.asp>
8. <http://www.w3schools.com/js/default.asp>
9. <http://www.w3schools.com/js/default.asp>
10. <http://dev.w3.org/html5/html4-differences/>
11. <http://www.w3schools.com/js/default.asp>
12. <http://www.w3schools.com/html/default.asp>
13. <http://www.w3schools.com/js/default.asp>

7. Schedule

Theory

Session/ Mode	Related LO	Topics	References
1 F2F	LO 1	Website - Introduction - History of HTML and the World Wide Web - Tools for developing website - Web Content - Web Content Delivery - Web Programming	- Website - Introduction - Beginning HTML, XHTML, CSS, and JavaScript (Wrox Programmer to Programmer), Chapter 1 - Sams teach yourself HTML, CSS, and JavaScript : all in one, Chapter 1 - 2 - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5), - HTML Tutorial, http://www.studygs.net/design.htm
2 F2F	LO 1 LO 2	Understanding HTML, XHTML, CSS, JavaScript - HTML - HTML 5 - HTML and XHTML - CSS - JavaScript	- Understanding HTML, XHTML, CSS, JavaScript - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5), - Sams teach yourself HTML, CSS, and JavaScript : all in one, Chapter 2 - 4

			- HTML5 differences from HTML4, http://dev.w3.org/html5/html4-differences/
3 F2F	LO 1 LO 2 LO 3	HTML - Basic - Basic HTML tags - Fonts - Headers - Horizontal Rules - Line Break - Paragraph - Special Characters - Text alignments	- HTML - Basic - Sams teach yourself HTML, CSS, and JavaScript : all in one, Chapter 2, 5 - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5), - Beginning HTML, XHTML, CSS, and JavaScript (Wrox Programmer to Programmer), Chapter 1 - HTML Tutorial, http://www.w3schools.com/html/default.asp
4 F2F	LO 1 LO 2	HTML – Lists, Frames, Tables, and Links - Lists - Frames - Simple Tables - Table formattings - External Link - Web content Link - Pages Link - Email Link - Target attributes	- HTML – Lists, Frames, Tables, and Links - Beginning HTML, XHTML, CSS, and JavaScript (Wrox Programmer to Programmer), Chapter 2, 4 - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5), - Sams teach yourself HTML, CSS, and JavaScript : all in one, Chapter 6 - 7 - HTML Tutorial, http://www.w3schools.com/html/default.asp
5 GSLC	LO 1 LO 2	HTML - Colors, Images, and Multimedia - Best Practices – Colors - Web Colors - Background, Text, and Border Colors - Images - Image Links - Image Maps - Multimedia	- HTML - Colors, Images, and Multimedia - Beginning HTML, XHTML, CSS, and JavaScript (Wrox Programmer to Programmer), Chapter 3 - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5), - Sams teach yourself HTML, CSS, and JavaScript : all in one, Chapter 8 - HTML Tutorial, http://www.w3schools.com/html/default.asp
6 F2F	LO 1 LO 2 LO 3	CSS - HTML and CSS - Internal and External CSS - CSS Text Styles - CSS Links - CSS Box and Positioning	- CSS - Sams teach yourself HTML, CSS, and JavaScript : all in one, Chapter 9 - 11 - Learning PHP, MySQL & JavaScript: With jQuery,

		- CSS Table	CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5), - Beginning HTML, XHTML, CSS, and JavaScript (Wrox Programmer to Programmer), Chapter 7 -8 - CSS Tutorial, http://www.w3schools.com/css/default.asp
7 F2F	LO 1 LO 2 LO 3	JavaScript - Introduction - HTML and JavaScript - Dynamic website - Basic JavaScript concept - JavaScript syntax rules - Variables, Strings, and Arrays - Converting data type - Sorting	- JavaScript - Introduction - Beginning HTML, XHTML, CSS, and JavaScript (Wrox Programmer to Programmer), Chapter 11 - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5), - Sams teach yourself HTML, CSS, and JavaScript : all in one, Chapter 13 - 16 - JavaScript Tutorial, http://www.w3schools.com/js/default.asp
8 F2F	LO 1 LO 2	JavaScript - Functions and Objects - Functions - Objects - Math functions and objects - Date objects	- JavaScript - Functions and Objects - Sams teach yourself HTML, CSS, and JavaScript : all in one, Chapter 17 - Beginning HTML, XHTML, CSS, and JavaScript (Wrox Programmer to Programmer), Chapter 11 - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5), - JavaScript Tutorial, http://www.w3schools.com/js/default.asp
9 GSLC	LO 1 LO 2	JavaScript - Conditions, Loops, and Events - If statement - For loops - While loops - Do...While loops - Looping through object properties - Events - Event handlers	- JavaScript - Conditions, Loops, and Events - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5), - Sams teach yourself HTML, CSS, and JavaScript : all in one, Chapter 18 - 19 - Beginning HTML, XHTML, CSS, and JavaScript (Wrox Programmer to Programmer), Chapter 11 - JavaScript Tutorial, http://www.w3schools.com/js/default.asp

			<ul style="list-style-type: none"> - JavaScript Tutorial, http://www.w3schools.com/js/default.asp
10 F2F	LO 1 LO 2	JavaScript - Form Validation and Dialog Box <ul style="list-style-type: none"> - Form and Text Input - Validation - Dialog Box 	<ul style="list-style-type: none"> - JavaScript - Form Validation and Dialog Box - Sams teach yourself HTML, CSS, and JavaScript : all in one, Chapter 20, 26 - Beginning HTML, XHTML, CSS, and JavaScript (Wrox Programmer to Programmer), Chapter 12 - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5), - JavaScript Tutorial, http://www.w3schools.com/js/default.asp
11 GSLC	LO 1 LO 2	JavaScript – Form Submission <ul style="list-style-type: none"> - Form elements - Submitting Form data - Displaying data from a Form - Sending Form results by Email 	<ul style="list-style-type: none"> - JavaScript – Form Submission - Sams teach yourself HTML, CSS, and JavaScript : all in one, Chapter 26 - Beginning HTML, XHTML, CSS, and JavaScript (Wrox Programmer to Programmer), Chapter 12 - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5), - JavaScript Tutorial, http://www.w3schools.com/js/default.asp
12 F2F	LO 1 LO 2	JavaScript - Advanced JavaScript Programming <ul style="list-style-type: none"> - Non-JavaScript Browsers - Frameworks 	<ul style="list-style-type: none"> - JavaScript - Advanced JavaScript Programming - Sams teach yourself HTML, CSS, and JavaScript : all in one, Chapter 21 - 22, 24 - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5), - JavaScript Tutorial, http://www.w3schools.com/js/default.asp
13 F2F	LO 1 LO 2 LO 3	Review <ul style="list-style-type: none"> - Review / Project 	<ul style="list-style-type: none"> - Review - Sams teach yourself HTML, CSS, and JavaScript : all in one, - Beginning HTML, XHTML, CSS, and JavaScript (Wrox Programmer to Programmer), - Learning PHP, MySQL & JavaScript: With jQuery,

			CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5),
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Practicum

Session/ Mode	Related LO	Topics	References
1 F2F	LO 1 LO 2 LO 3	HTML - Basic - Introduction to HTML - HTML Tags - Image - Text Styling - Text Allignments - Line - Font - Paragraph & Heading	- HTML - Basic - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5),
2 F2F	LO 2 LO 3	HTML - Images, Tables and Links - Link - Target Attributes - Image Map - List - Table - Table Formatting - Frame - Image - Image Link	- HTML - Images, Tables and Links - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5),
3 F2F	LO 2 LO 3	HTML - Images, Tables and Links - Link - Target Attributes - Image Map - List - Table - Table Formatting - Frame - Image - Image Link	- HTML - Images, Tables and Links - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5),
4 F2F	LO 1 LO 2 LO 3	CSS – Introduction - Internal and External CSS - CSS Text Styles - CSS Links	- CSS – Introduction - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5),
5 F2F	LO 1 LO 2 LO 3	CSS - Box and Positioning - Div Element - CSS Box and Positioning	- CSS - Box and Positioning - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5),
6 F2F	LO 1 LO 2 LO 3	JavaScript – Introduction - Input / Output - Variable - Converting Data Type - Arithmetic Operations	- JavaScript – Introduction - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5),
7 F2F	LO 2 LO 3	JavaScript - Selection, Loop, Functions and Objects - Selection - Looping - Module / Function - JavaScript Array - Sort	- JavaScript - Selection, Loop, Functions and Objects - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5),

		<ul style="list-style-type: none"> - JavaScript Date - JavaScript String - JavaScript Math - Random 	
8 F2F	LO 2 LO 3	JavaScript - Selection, Loop, Functions and Objects <ul style="list-style-type: none"> - Selection - Looping - Module / Function - JavaScript Array - Sort - JavaScript Date - JavaScript String - JavaScript Math - Random 	<ul style="list-style-type: none"> - JavaScript - Selection, Loop, Functions and Objects - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5),
9 F2F	LO 2 LO 3	JavaScript - Form Validation and Dialog Box <ul style="list-style-type: none"> - Form - Form Components - Mouse Event (onclick, onmouseover) - Keyboard Event (onkeydown, onkeypress, onkeyup) - Form Event (onblur, onchange, onfocus) - Validation Form - Dialog Boxes 	<ul style="list-style-type: none"> - JavaScript - Form Validation and Dialog Box - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5),
10 F2F	LO 2 LO 3	JavaScript - Form Validation and Dialog Box <ul style="list-style-type: none"> - Form - Form Components - Mouse Event (onclick, onmouseover) - Keyboard Event (onkeydown, onkeypress, onkeyup) - Form Event (onblur, onchange, onfocus) - Validation Form - Dialog Boxes 	<ul style="list-style-type: none"> - JavaScript - Form Validation and Dialog Box - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5),
11 F2F	LO 2 LO 3	JavaScript - Advanced JavaScript <ul style="list-style-type: none"> - Window Object - Review - Making a simple website - Project Collection 	<ul style="list-style-type: none"> - JavaScript - Advanced JavaScript - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5),
12 F2F	LO 3	Project Collection <ul style="list-style-type: none"> - Project Collection 	<ul style="list-style-type: none"> - Project Collection - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5), - Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (Learning Php, Mysql, Javascript, Css & Html5),

8. Evaluation

Theory

Assessment Activity	Weight	Learning Outcomes		
		1	2	3
Assignment	20%	√	√	√
Mid Exam	30%	√	√	√
Final Exam	50%	√	√	√

Practicum





Assessment Activity	Weight	Learning Outcomes		
		1	2	3
Assignment	40%	√	√	√
Project	60%	√	√	√

Final Evaluation Score

Aspects	Weight
Theory	70%
Practicum	30%

9. A. Assessment Rubric (Study Program Specific Outcomes)

LO	Indicators	Proficiency Level			
		Excellent (85 – 100)	Good (75 – 84)	Average (65 – 74)	Poor (<= 64)
LO 1	1.1. Ability to explain what is website-based programming	The explanations are relevant and clearly stated	The explanations are relevant but not clearly stated	The explanations are not relevant but clearly stated	The explanations are not relevant and not clearly stated
	1.2. Ability to explain the concept of website programming	The concepts of website programming are relevant and clearly stated	The concepts of website programming are relevant but not clearly stated	The concepts of website programming are not relevant but clearly stated	The concepts of website programming are not relevant and not clearly stated
LO 2	2.1. Ability to describe the type of programming language	The description are relevant and clearly stated	The description are relevant but not clearly stated	The description are not relevant but clearly stated	The description are not relevant and not clearly stated
	2.2. Ability to choose appropriate programming language techniques	The programming language techniques are selected and used appropriately	The programming language techniques are selected appropriately but not used appropriately	The programming language techniques are not selected appropriately but used appropriately	The programming language techniques are not selected and not used appropriately
LO 3	3.1. Ability to write the website codes / scripts	The website codes / scripts are 100% correct	The website codes / scripts are 90-99% correct	The website codes / scripts are 80-89% correct	The website codes / scripts are less than 80% correct
	3.2. Ability to create website application based on requirements	The website application is 100% appropriate	The website application is 90-99% appropriate	The website application is 80-89% appropriate	The website codes / scripts are less than 80% correct

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