

Syrian Arab Republic	 الجامعة الافتراضية السورية SYRIAN VIRTUAL UNIVERSITY	الجمهورية العربية السورية
Ministry of Higher Education		وزارة التعليم العالي
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Web Application Development Course Definition File

1- Basic Information:

Course Name	Web Application Development
Course ID	WB
Contact Hours (Registered Sessions)	27
Contact Hours (Synchronized Sessions)	18
Mid Term Exam	NO
Exam	2
Registered Sessions Work Load	54
Synchronized Session Work Load	18
Credit Hours	6

2- Pre-Requisites:

Course	ID
Introduction to programming	

3- Course General Objectives:

Students learn in this course how to develop client and server side web applications using JavaScript and Visual Studio .NET 2013.

4- Intended Learning Outcomes (ILO):

Learning Outcomes codes	Learning Outcomes
LO1	Learn XHTML
LO2	Acquire advanced skills in XHTML
LO3	Learn using CSS
LO4	Learn JavaScript basics
LO5	Make interaction between JavaScript and HTML
LO6	Create dynamic pages using JavaScript
LO7	Learn JQuery basics
LO8	Dealing with methods and properties in JQuery

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LO9	Acquire advanced skills in JQuery
LO10	Learn ASP.NET 2013 basics
LO11	Manage State in web applications
LO12	Manipulating tables and objects
LO13	Binding controls with data sources
LO14	Dealing with databases
LO15	Establish Web services
LO16	Using XML

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5- Course Content

LO	Course Syllabus	Recorded Sessions	Synchronized Sessions	Type	Additional Notes
LO1	Learn XHTML	1	2	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	Visual Studio 2013
LO2	Acquire advanced skills in XHTML	1	2	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	Visual Studio 2013
LO3	Learn using CSS	1	2	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	Visual Studio 2013
LO4	Learn JavaScript basics	2	2	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	Visual Studio 2013
LO5	Make interaction between JavaScript and HTML	1	2	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	Visual Studio 2013
LO6	Create dynamic pages using JavaScript	1	2	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	Visual Studio 2013

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LO7	Learn JQuery basics	1	2	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	Visual Studio 2013
LO8	Dealing with methods and properties in JQuery	1	1	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	Visual Studio 2013
LO9	Acquire advanced skills in JQuery	1	1	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	Visual Studio 2013
LO10	Learn ASP.NET 2013 basics	2	1	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	Visual Studio 2013
LO11	Manage State in web applications	1	1	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	Visual Studio 2013
LO12	Manipulating tables and objects	1	1	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	Visual Studio 2013
LO13	Binding controls with data sources	1	2	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices	Visual Studio 2013

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				<input type="checkbox"/> Others <input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input checked="" type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	
LO14	Dealing with databases	1	2	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input checked="" type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	Visual Studio 2013
LO15	Establish Web services	1	1	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input checked="" type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	Visual Studio 2013
LO16	Using XML	1	2	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Assignments <input type="checkbox"/> Seminars <input type="checkbox"/> Projects <input checked="" type="checkbox"/> Practices <input type="checkbox"/> Others	Visual Studio 2013

6- Assessment Criteria (Related to ILOs)

LO Code	LO	Assessment Type				
		Interactive Synchronized Collaboration	Practice	Exams	Presentations And Face-to-Face Assessments	Reports
LO1	Learn XHTML	X	X	X		
LO2	Acquire advanced skills in XHTML	X	X	X		
LO3	Learn using CSS	X	X	X		
LO4	Learn JavaScript basics	X	X	X		
LO5	Make interaction between JavaScript and HTML	X	X	X		
LO6	Create dynamic	X	X	X		

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	pages using JavaScript					
LO7	Learn JQuery basics	X	X	X		
LO8	Dealing with methods and properties in JQuery	X	X	X		
LO9	Acquire advanced skills in JQuery	X	X	X		
LO10	Learn ASP.NET 2013 basics	X	X	X		
LO11	Manage State in web applications	X	X	X		
LO12	Manipulating tables and objects	X	X	X		
LO13	Binding controls with data sources	X	X	X		
LO14	Dealing with databases	X	X	X		
LO15	Establish Web services	X	X	X		
LO16	Using XML	X	X	X		

7- Course Syllabus (18 hours of total synchronized sessions)

Chapter	Contents	
(1) XHML Basics	Web Basics	<ul style="list-style-type: none"> • The internet • IP Addresses • Domain Names • Servers Names • World Wide Web • Web Browsers • Web Servers • Apache

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		<ul style="list-style-type: none"> • IIS
	Main tags	<ul style="list-style-type: none"> • HTML vs XHTML • Syntax • Document structure • Paragraphs • Headings • Fonts • Images • Hyperlinks • Lists
	Tables	<ul style="list-style-type: none"> • Tables tags • Tables formatting
(2) Advanced skills in XHTML	Forms	<ul style="list-style-type: none"> • <form> • <input> • textbox • password • checkbox • radio button • submit button • reset button • <select> • <textarea>
	HTML5	<ul style="list-style-type: none"> • <video> • <audio> • <svg> • HTML5 - Web Forms 2.0 • <input> • <placeholder> • <autofocus> • <required>
(3) Cascade Style Sheets	CSS	<ul style="list-style-type: none"> • Simple Selectors • Contextual Selectors • Class Selectors

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		<ul style="list-style-type: none"> • Generic Selectors • id Selectors • Property-Value
	Font	<ul style="list-style-type: none"> • Font Formatting
	Lists	<ul style="list-style-type: none"> • Lists Formatting
(4) JavaScript Basics	JavaScript	<ul style="list-style-type: none"> • Identifiers • Key words • Comments • Statements • Data Types • Variables • Input/Output
	Statements	<ul style="list-style-type: none"> • Boolean expressions • Primitive values • Relational Expressions • Compound Expressions • Selection Statements • if • switch • Looping
	Arrays	<ul style="list-style-type: none"> • Using arrays
	Functions	<ul style="list-style-type: none"> • Declare functions • Call function
	Patterns Matching	<ul style="list-style-type: none"> • Meta chars • Match
(5) HTML and JavaScript	HTML and JavaScript	<ul style="list-style-type: none"> • DOM (Document Object Model) • getElementById • getElementsByTagName
	Events	<ul style="list-style-type: none"> • Body events • Controls events
	Input Validation	<ul style="list-style-type: none"> • Input Validation

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	Example	• Example
(6) Dynamic pages	Elements positions	<ul style="list-style-type: none"> • Absolute • Relative • Static
	Dealing with elements	<ul style="list-style-type: none"> • Show/Hide • Modify fonts and colors
	Dynamic contents	<ul style="list-style-type: none"> • Elements stacking • Dealing with the mouse
	Moving elements	<ul style="list-style-type: none"> • Moving elements
(7) JQuery Basics	Basics	<ul style="list-style-type: none"> • JQuery library • JQuery functions
	Selectors	<ul style="list-style-type: none"> • Selecting elements
(8) Attributes and methods in JQuery	Attributes	<ul style="list-style-type: none"> • Read/Write attributes
	CSS	<ul style="list-style-type: none"> • JQuery CSS functions
(9) JQuery skills	Dealing with elements	<ul style="list-style-type: none"> • Dealing with DOM
	Dealing with events	<ul style="list-style-type: none"> • Object Events • Event Helper Methods • Trigger Methods • Binding Methods
	Ajax	<ul style="list-style-type: none"> • the load method • Sending data to the server • JSON • JQuery AJAX functions • JQuery AJAX events
	Effects	<ul style="list-style-type: none"> • Show/Hide • UI library
(10) ASP.Net Basics	Basic	<ul style="list-style-type: none"> • CLR language • .NET languages • ASP.NET documents
	HTML Controls	<ul style="list-style-type: none"> • HTML Server Controls • ASP.NET Life Cycle • Page-Level Events

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		<ul style="list-style-type: none"> • Controls Events
	Web Controls	<ul style="list-style-type: none"> • Web Controls
	Validation Controls	<ul style="list-style-type: none"> • Validation Controls
(11) State Management	View State	<ul style="list-style-type: none"> • View state variables
	Session	<ul style="list-style-type: none"> • Session variables
	Cookies	<ul style="list-style-type: none"> • Dealing with cookies
(12) Data Binding	Binding Controls	<ul style="list-style-type: none"> • Binding with single value
	Binding with multiple values	<ul style="list-style-type: none"> • Binding with collections
(13) Dealing with databases	Databases connection	<ul style="list-style-type: none"> • Create database • SqlDataSource
	Display data in controls	<ul style="list-style-type: none"> • Using lists to display data
	Using data controls	<ul style="list-style-type: none"> • FormView • GridView • DetailsView
(14) Database Programming	Database Programming	<ul style="list-style-type: none"> • SqlConnection • SqlCommand • SqlDataReader
	Example	<ul style="list-style-type: none"> • Example
	Repeater	<ul style="list-style-type: none"> • Repeater
	Datasets	<ul style="list-style-type: none"> • SqlDataAdapter • DataSet • DataAdapter
	Example	<ul style="list-style-type: none"> • Example
(15) Web Services	Web Service	<ul style="list-style-type: none"> • Create web service
	Publish Web Service	<ul style="list-style-type: none"> • Publish web service
	Example	<ul style="list-style-type: none"> • Example
(16) XML	XML	<ul style="list-style-type: none"> • XML basics
		<ul style="list-style-type: none"> • XML and datasets

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8- Practice Tools:

Tool Name	Description
Visual Studio 2013	