



الجامعة الأهلية
AHLIA UNIVERSITY

BAHRAIN

COLLEGE OF INFORMATION TECHNOLOGY

DEPARTMENT OF MULTIMEDIA SCIENCE

COURSE SYLLABUS/SPECIFICATION

CODE & TITLE: ITMS 435: Web Programming III
WEIGHT: (2 - 2 - 3)
PREREQUISITE: ITMS 421

NQF Level Allocated: 8

NQF Notional Hours / Credits: 120 notional hours/ 12 NQF credit

DESCRIPTION: This course introduces students to develop advanced ASP.NET MVC applications using .NET Framework 4.5 tools and technologies. The focus will be on coding activities that enhance the performance and scalability of the Web site application. ASP.NET MVC will be introduced and compared with Web Forms so that students know when each should/could be used.

OBJECTIVES:

- Describe the Microsoft Web Technologies stack and select an appropriate technology to use to develop any given application.
- Create advanced MVC Models and write code that implements business logic within Model methods, properties, and events.
- Describe how to write advanced Windows Azure web service and call it from an MVC application. Modify the way browser requests are handled by an MVC application.
- Describe how to package and deploy an advanced ASP.NET MVC 4 web application from a development computer to a web server for staging or production

SEMESTER:

ACADEMIC YEAR:

INSTRUCTOR:

OFFICE TEL:

EMAIL:

INTENDED LEARNING OUTCOMES (ILOS)

Upon successful completion of the course, students should be able to:

A. Knowledge and Understanding		NQF Descriptor/Level
A1	<u>Concepts and Theories</u> : Demonstrate <i>critical knowledge</i> and understanding of concepts, and specialized theories relating to MVC Framework, Responsive Pages and dynamic websites using ASP.net MVC.	Knowledge: theoretical understanding [Level 8]
A2	<u>Contemporary Trends, Problems and Research</u> : NA	
A3	<u>Professional Responsibility</u> : NA	

B. Subject-Specific Skills		NQF Descriptor/Level
B1	<u>Problem Solving</u> : Use specialist Skills to identify and solve real life problems	Knowledge: Practical Application [Level 8]
B2	<u>Modeling and Design</u> : Demonstrate creativity in application of knowledge and design the architecture of Application by choosing specialized appropriate components and models that satisfy user specifications.	Knowledge: Practical Application [Level 8]
B3	<u>Application of Methods and Tools</u> : <i>Demonstrate creativity in application of appropriate advanced tools related to Dot Net Framework, IIS, Html 5, Ajax, JQuery Library and SQL Server for creating advanced dynamic web sites.</i>	Knowledge: Practical Application [Level 8]

C. Thinking Skills		NQF Descriptor/Level
C1	<u>Analytic</u> : Critically analyze specialized case studies and recommend suitable solutions Applications.	Generic Problem Solving & Analytical skills [Level 8]
C3	<u>Creative</u> : Demonstrate creativity in designing advanced Responsive Pages and MVC Applications.	Generic Problem Solving & Analytical skills [Level 8]

D. General and Transferable Skills (Other Skills Relevant to Employability and Personal		NQF Descriptor/Level
D1	<u>Communication</u> : Make formal presentations and communicate technical information in appropriate oral and written forms to a variety of audiences.	Communication, ICT and Numeracy Skills [Level 7]
D2	<u>Teamwork and Leadership</u> : NA	

D3	<u>Organizational and Developmental Skills</u> : Demonstrate ability to organize ideas and effectively allocate time in given assignment.	Competence: Autonomy, Responsibility and Context [Level 8]
D4	<u>Ethical and Social Responsibility</u> : NA	

1. Course Structure (Outline)						
Week	Hours		ILOs	Topics	Teaching Method	Assessment Method
	Lec.	Lab				
1	2	2	A1	Exploring ASP.NET MVC 4	Lecture/ lab Demonstration	-
2	2	2	A1,B1,C1, D1	Designing ASP.NET MVC 4 Web Applications	Lecture/ lab Demonstration	In-Lab Exercise
3	2	2	A1,B1,B2,C1,C3, D1	Developing ASP.NET MVC 4 Models	Lecture/ lab Demonstration	In-Lab Exercise
4	2	2	A1, B1, B3, D1	Developing ASP.NET MVC 4 Controllers	Lecture/ Lab Demonstration/ Supervised Work	In-Lab Exercise Oral Inquiry*
5	2	2	A1,B1, B2, B3, C1, C3	Developing ASP.NET MVC 4 Views	Lecture/ Lab Demonstration/ Supervised Work	Quiz
6	2	2	A1, B1, B2, B3, C1, C3, D1	Testing and Debugging ASP.NET MVC 4 Web Applications	Lab Demonstration/ Supervised Work	In-Lab Exercise

7	2	2	A1,B1, B2, B3, C1, C3,D1	Structuring ASP.NET MVC 4 Web Applications	Lecture/ Lab Demonstration/ Supervised Work	Oral Inquiry*
8	2	2	A1, B1, B2, B3, C1, C3, D1	Applying Styles to ASP.NET MVC 4 Web Applications	Lab Demonstration/ Supervised Work	In-Lab Exercise
9	2	2	A1,B1, B2, B3, C1, C3, D1	Building Responsive Pages in ASP.NET MVC 4 Web Applications	Lecture/ Lab Demonstration/ Supervised Work	Oral Inquiry*
10	2	2	A1,B1, B3, C1, C3	Using JavaScript and jQuery for Responsive MVC 4 Web Applications	Lecture/ Lab Demonstration/ Supervised Work	Major Test
11	2	2	A1,B1,B2,B3, C1,C3	Controlling Access to ASP.NET MVC 4 Web Applications	Lecture/ Lab Demonstration/ Supervised Work	Quiz In-Lab Exercise
12	2	2	A1,B1, B2, B3, C1, C3, D1	Building a Resilient ASP.NET MVC 4 Web Application	Lecture/ Lab Demonstration/ Supervised Work	In-Lab Exercise
13	2	2	A1,B1, B2, B3, C1, C3, D1	Using Windows Azure Web Services in ASP.NET MVC 4 Web Applications	Lecture/ Lab Demonstration/ Supervised Work	In-Lab Exercise
14	2	2	A1, B1,B2, B3,C1,C3, D1	Implementing Web APIs in ASP.NET MVC 4 Web Applications	Lecture/ Lab Demonstration/ Supervised Work	In-Lab Exercise

15	2	2	A1,B1,B2,B3, C1,C3,D1,D3	Handling Requests in ASP.NET MVC 4 Web Applications	Lecture/ Presentation Of Projects By Students	Evaluation Of Project Presentations & Reports
16	2	2	A1, B1,B2, B3, C1,C3	All Topics		Final Exam

TEACHING MATERIALS:

TEXTBOOK(S):	<ul style="list-style-type: none"> Course 20486: Developing ASP.NET MVC 4 Web Applications, Training Guide, 2013, ISBN: 978-0735677227
HANDOUT(S):	PowerPoint slides available on Moodle i.e. http://www.ahlia.edu.bh/moodle
REFERENCE(S):	<p>Dino Esposito, "Programming ASP.NET Core (Developer Reference) 1st Edition", Microsoft Press, 2018, ISBN: 978-1509304417</p> <p>Ritesh Modi, "Azure for Architects: Implementing cloud design, DevOps, IoT, and serverless solutions on your public cloud", Packt Publishing, 2017, ISBN: 978-1788397391</p>

ASSESSMENTS:

Type of Assessment	Description	ILOs³	Weighting
Oral Inquiry	Students will be questioned orally to demonstrate their understanding and knowledge of the topics covered during class lectures and lab sessions.	A1, D1	Formative
Quizzes	The quizzes consist of essay, problem-solving and research based theoretical questions regarding topics in ASP.Net MVC and Responsive Pages. The purpose of the quizzes is to assess students individually where they have to demonstrate their extensive and detailed knowledge and critical understanding of key concepts of ASP.Net, Html 5, Responsive Pages and JQuery Library.	A1,B1,B2, B3, C1,C3	20%
Major Test	The test will be an in-class 1:30hrs exam that will consist of short-answer, essay, and create web or windows application and cover the topics studied in the first 9 weeks.	A1,B1, B3, C1, C3	25%
In-Lab Exercises	Each practical exercise consists of a set of practical tasks to be implemented by students individually in lab as shown in the above weekly structure. Each of the exercises assesses the student's skills in the field of programming application. Students work will be observed and evaluated directly during the lab sessions.	B1,B2, B3,C1,C3, D1	5%
Project Report And Presentation	Starting from week 6, each student will be asked to develop a small Application project.	B1,B2,B3, C1,C3, D1,D3	10%
Final Exam	The final exam is comprehensive and practical, and will be of 120 minute duration. It will consist of short-answer, essay and problem-solving questions to be	A1, B1,B2, B3, C1,C3	40%

	done on computers.		
			Overall 100%

14. Admissions	
Pre-requisites	ITMS 421
Minimum number of students	8
Maximum number of students	20

