Science & IT
Faculty of Science & IT

جامعـة الزيتونــة الأردنيــة
Al–Zaytoonah University of Jordan
كلية العلوم وتكنولوجيا المعلومات
Faculty of Science and IT

تراث وجودة
"Tradition and Quality"

QF01/0408-4.0E	Course Plan for Bachelor program - Study Plan Development and Updating Procedures/ Department

Study plan No.	2021/2022	University Specialization	Software Engineering
Course No.	0114324	Course name	Web Application Development
Credit Hours	3	Prerequisite Co-requisite	Web Design

Course type	☐ MANDATORY UNIVERSITY REQUIREMENT	☐ UNIVERSITY ELECTIVE REQUIREMENTS	☐ FACULTY MANDATORY REQUIREMENT	☐ Support course family requirements √	☐ Mandatory requirements	☐ Elective requirements
Teaching style	☐ Full online learning		☐ Blended learning		☐ Traditional learning √	
Teaching model	☐ 2Synchronous: 1asynchronous		☐ 2 face to face : 1synchronous		☐ 3 Traditional √	

Faculty member and study divisions information (to be filled in each semester by the subject instructor)

Name	Academic rank	Office No.	Phone No.	E-mail

Division number	Time	Place	Number of students	Teaching style	Approved model

Brief description

This course will cover the following topics in ASP.NET Core 3.1: The introduction of ASP.NET Core 3.1 with MVC 3 , Model , View and Controller (MVC) pattern design, HTML helper and HTML tags, working with controller , working with View and razor code , transferring data between Controllers and Views , Model Binding , Validation in both client and server side , SQL server database , CRUD in ASP.NET Core MVC , Authentication and Authorization

Learning resources

Course book information (Title, author, date of issue, publisher ... etc)	Mary Delamater, Joel Murach. "**Murach's ASP.NET Core MVC (Paperback)**". Mike Murach & Associate, Inc; (2020)
Supportive learning resources (Books, databases, periodicals, software, applications, others)	1- Mark J. Price. "**C# 9 and .NET 5 – Modern Cross-Platform Development: Build intelligent apps, websites, and services with Blazor, ASP.NET Core, and Entity Framework Core using Visual Studio Code, 5th Edition**". Birmingham-Mumbai/PackT; **(2020)** 2- Adam Freeman. **"Pro ASP.NET Core MVC 2 (7 Edition)".** Apress; **(2017)**
Supporting websites	None
The physical environment for teaching	☐ Class room ☐ Labs √ ☐ Virtual educational platform ☐ Others
Necessary equipment and software	**Visual Studio 2019 & SQL Server 2017**

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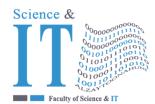| Supporting people with special needs	
For technical support	**E-learning Center and Computer Center Department**

Course learning outcomes (S= *Skills, C= Competences K= Knowledge,*)

No.	Course learning outcomes	The associated program learning output code
	Knowledge	
K1	Understanding the benefits of MVC design over traditional ASP.NET Web Forms.	**MK4**
K2	Acquiring sufficient knowledge on role of Model, View and Controller in integrating them to develop complete web application	**MK4**
K3	Learn how to reuse code rendering HTML using custom HTML Helper methods and Tag Helpers	**MK4**
K4	Understanding and applying validation framework for both client and server validations.	**MK4**
K5	Access databases and performing CRUD operations using LINQ and Entity Framework and implement security in ASP.Net Core applications.	**MK4**
	Skills	
S1	An ability to analyze, design, implement, apply, maintain, and manage the web Application.	**MS1**
S2	An ability to use the Microsoft techniques and select an appropriate technology to use to develop any given web application.	**MS3**
	Competences	
C1	Ability to develop web application systems in one or more significant application domains.	**MC2**
C2	An ability to communicate with, and learn from, experts from different domains related to web applications throughout their careers.	**MC3**

Mechanisms for direct evaluation of learning outcomes

Type of assessment / learning style	Fully electronic learning	Blended learning	Traditional Learning (Theory Learning)	Traditional Learning (Practical Learning)
Midterm exam	30%	30%	**40%**	30%
Participation / practical applications	0	0	**10%**	30%
Asynchronous interactive activities	30%	30%	**0**	0
Final exam	40%	40%	**50%**	40%

Note: Asynchronous interactive activities are activities, tasks, projects, assignments, research, studies, projects, work within student groups ... etc, which the student carries out on his own, through the virtual platform without a direct encounter with the subject teacher.

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Schedule of simultaneous / face-to-face encounters and their topics

Week	Subject	learning style*	Reference **
1	**Chapter 1**: An introduction to web programming with 4-30 ASP.NET Core programming	**Lecture**	**Textbook 1** **Page:** 4-30
2	**Chapter 2:** How to develop a single-page MVC application	**Lecture**	**Textbook 1** **Page:** 38 – 74
3	**Chapter 6:** How to work with controllers and routing	**Lecture**	**Textbook 1** **Page:** 198 – 216
4	**Chapter 7:** How to work with Razor View	**Lecture**	**Textbook 1** **Page:** 228 – 270
5	**Chapter 8:** How to transfer data from controllers	**Lecture**	**Textbook 1** **Page:** 280- 302
6	**Chapter 9:** How to work with session state and Cookies	**Lecture**	**Textbook 1** **Page:** 332-350
7	**Chapter 10:** How to work with model binding	**Lecture**	**Textbook 1** **Page:** 360 – 366
8	**Chapter 10:** How to work with model binding	**Lecture**	**Textbook 1** **Page:** 366 – 376
9	**Chapter 11:** How to use validate data	**Lecture**	**Textbook 1** **Page:** 398 – 420
10	**Chapter 12**: How to use EF Core	**Lecture**	**Textbook 1** **Page:** 450 – 455
11	**Chapter 12:** How to use EF Core	**Lecture**	**Textbook 1** **Page:** 455 – 460
12	**Chapter 16** How to authenticate and authorize users	**Lecture**	**Textbook 1** **Page:** 697 – 700
13	**Chapter 13**: the bookstore website (Implementation)	**Lecture**	**Textbook 1** **Page:** 496- 530
14	**Chapter 13**: the bookstore website (Implementation)	**Lecture**	**Textbook 1** **Page:** 496- 530
15	**Chapter 13**: the bookstore website (Implementation)	**Lecture**	**Textbook 1** **Page:** 496- 530
16	**Final Exam**		

* **Learning styles: Lecture, flipped learning, learning through projects, learning through problem solving, participatory learning ... etc.**
** **Reference: Pages in a book, database, recorded lecture, content on the e-learning platform, video, website ... etc.**

Schedule of asynchronous interactive activities (in the case of e-learning and blended learning)

Week	Task / activity	Reference	Expected results
1			
2			

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