COLLEGE OF INFORMATION TECHNOLOGY

DEPARTMENT OF MULTIMEDIA SCIENCE

COURSE SYLLABUS/ SPECIFICATION

Course Code & Title:	**ITMS 335: WEB PROGRAMMING I**
Weight:	**(2-2-3)**
Prerequisite:	**ITCS 221**
NQF Level Allocated:	**7**
NQF Notional Hours / Credits:	**120 notional hours/ 12 NQF credit**

Description: This course provides students with the knowledge and skills needed to understand, Core Programming, Object-Oriented Programming, General Software Development, Web Applications, Desktop Applications, Databases, Build the User Interface by Using HTML5, and Format the User Interface by Using CSS, Code by Using JavaScript.

Objective:

1. Understand Core Programming, Object-Oriented Programming & General Software Development
2. Understand Web Applications, Desktop Applications & Databases
3. Manage the Application Life Cycle
4. Build the User Interface by Using HTML5
5. Format the User Interface by Using CSS
6. To gain the different techniques of designing and developing entire dynamic websites (JavaScript)

Semester:

Instructor (s):

Office Telephone: **Email (s):**

Intended Learning Outcomes (ILOs):

A. Knowledge and Understanding		NQF Descriptor/ Level
A1	**Concepts and Theories:** Demonstrate advanced understanding of concepts, and specialized theories relating to .NET Framework, the .NET Platform, dynamic websites and Desktop Applications & Databases.	Knowledge: theoretical understanding [Level 7]

B. Subject-specific Skills		NQF Descriptor/ Level
B1	**Problem Solving:** Identify real life problems and Design the solution to a given problem. Gather, and organize material from various sources independently (including library, electronic and online resources), and critically evaluate its significance.	Knowledge: Practical Application [Level 7]
B2	**Modeling and Design:** Design the architecture of Application by choosing appropriate components and models that satisfy user specifications.	Practical Application [Level 7]
B3	**Application of Methods and Tools:** Apply appropriate tools such as Dot Net Framework, IIS, Html 5 and SQL Server for creating dynamic web sites.	Knowledge: Practical Application [Level 7]

C. Critical-Thinking Skills		NQF Descriptor/ Level
C1	**Analytic skills:** Critically analyze case studies and recommend suitable solutions Applications.	Generic Problem Solving & Analytical skills [Level 7]
C3	**Creative:** Demonstrate creativity in designing dynamic websites and Desktop Applications & Databases.	Generic Problem Solving & Analytical skills [Level 7]

D. General and Transferable Skills (other skills relevant to employability and personal development)		NQF Descriptor/ Level
D1	**Communication:** Show ability to communicate technical information in appropriate oral and written forms to a variety of audiences.	Communication, ICT and Numeracy Skills [Level 6]

Course Structure (Outline)

Week	Hours		ILOs	Topics	Teaching Method	Assessment Method
	Lec.	Lab				
1	4	-	A1	Introduction to Object-Oriented Programming	Lecture	-
2	2	2	A1, D1	Understanding General Software Development	Lecture/ lab Demonstration	Oral Inquiry In-Lab Exercise
3	2	2	A1, B1,B2, B3,C1,C3	Understanding Web Applications	Lecture/ lab Demonstration	In-Lab Exercise
4	2	2	A1, B1,B2, B3,C1,C3	Understanding Desktop Applications	Lecture/ Lab Demonstration/ Supervised Work	In-Lab Exercise
5	2	2	A1, B1,B2, B3,C1,C3, D1	Understanding Databases	Lecture/ Lab Demonstration/ Supervised Work	Oral Inquiry In-Lab Exercise
6	2	2	A1,B1,B2,B3, C1,C3	Managing the Application Life Cycle	Lab Demonstration/ Supervised Work	Quiz
7	2	2	A1, B2,B3,C2, D1	Building the User Interface by Using HTML5: Text, Graphics, and Media	Lecture/ Lab Demonstration/ Supervised Work	Oral Inquiry
8	2	2	B1,B2, B3,C1,C3	Building the User Interface by Using HTML5: Organization, Input, and Validation	Lab Demonstration/ Supervised Work	In-Lab Exercise
9	2	2	B1,B2, B3,C1,C3	Understanding CSS Essentials: Content Flow, Positioning, and Styling	Lecture/ Lab Demonstration/ Supervised Work	In-Lab Exercise
10	2	2	A1,B1,B2,C1	Major Test	Lecture/ Lab Demonstration/ Supervised Work	Major Test
11	2	2	A1, B2,B3,D1	Understanding CSS Essentials: Layouts	Lecture/ Lab Demonstration/ Supervised Work	Oral Inquiry

12	2	2	A1,B1,B2,B3, C1,C3	Managing Text Flow by Using CSS	Lecture/ Lab Demonstration/ Supervised Work	Quiz
13	2	2	B1,B2, B3,C1,C3	Managing the Graphical Interface by Using CSS	Lecture/ Lab Demonstration/ Supervised Work	In-Lab Exercise
14	2	2	B1,B2, B3,C1,C3	Understanding JavaScript and Coding Essentials	Lecture/ Lab Demonstration/ Supervised Work	In-Lab Exercise
15	2	2	B1,B2,B3,C1,C3	Creating Animations, Working with Graphics, and Accessing Data	Lecture/ Presentation Of Projects By Students	Evaluation Of Project Presentations & Reports
16	2	2	A1, B1,B2, B3, C1,C3	JavaScript Coding for the Touch Interface, Device and Operating System resources, and More		Final Exam

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Teaching Materials:

Textbook(s):	• Software Development Fundamentals, Microsoft Official Academic Course, 2013, ISBN: 978-1-118-02687-8 • HTML5 Application Development Fundamentals, Microsoft Official Academic Course, 2013, ISBN: 978-1118359938
Handout(s):	-
Reference(s):	Microsoft Official Curriculum. https://www.microsoft.com/learning/en-us/course.aspx?ID=40361A https://www.microsoft.com/learning/en-us/course.aspx?ID=40375A - David Paquette, Simon Timms, "ASP.NET Core Application Development: Building an application in four sprints (Developer Reference) 1st Edition", 2016, Microsoft Press, ISBN: 978-1509304066 - Mithun Pattankar, Malendra Hurbuns, "Mastering ASP.NET Web API: Build powerful HTTP services and make the most of the ASP.NET Core Web API platform", 2017, Packt Publishing, ISBN: 978-1786463951

Assessment

Method of Assessment	Description	Learning Outcomes	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 Dot NET. 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 Dot NET.	A1,B1,B2,B3, C1,C3	20%
Major Test	The test will be an in-class 60 minute 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,B2,C1	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	5%
Project Report And Presentation	Starting from weak 6, each student will be asked to develop a small Application project.	B1,B2,B3,C1,C3	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 done on computers.	A1, B1,B2, B3, C1,C3	40%
Overall:			**100 %**

Admissions	
Pre-requisites	**ITCS 221**
Minimum number of students	**8**
Maximum number of students	**20**

Ahlia University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see www.ahlia.edu.bh/integrity **for more information).**