



COLLEGE OF INFORMATION TECHNOLOGY
DEPARTMENT OF MULTIMEDIA SCIENCE

COURSE SYLLABUS/SPECIFICATION

CODE & TITLE: ITMS 335: Web Programming I
WEIGHT: (2 - 2 - 3)
PREREQUISITE: ITMS205

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.

OBJECTIVES:

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:

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 advanced understanding of concepts, and specialized theories relating to desktop Applications & Databases.	Knowledge: theoretical understanding [Level 7]
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 advanced level skills to identify real life problems	Knowledge: Practical Application [Level 7]
B2	<u>Modeling and Design</u> : Undertake research to design the architecture of Application by choosing appropriate components and models that satisfy user specifications.	Knowledge: Practical Application [Level 7]
B3	<u>Application of Methods and Tools</u> : Apply advanced and appropriate tools for creating dynamic web sites.	Knowledge: Practical Application [Level 7]

C. Thinking Skills		NQF Descriptor/Level
C1	<u>Analytic</u> : Critically evaluate case studies and recommend suitable solutions Applications.	Generic Problem Solving & Analytical skills [Level 7]
C3	<u>Creative Thinking and innovation</u> : 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		NQF Descriptor/Level
D1	<u>Communication</u> : Use advanced skills to 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	

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 1
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/	Major Test

					Supervised Work	
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 2
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, D1,D3	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

TEACHING MATERIALS:

TEXTBOOK(S):	<ul style="list-style-type: none"> 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):	PowerPoint slides available on Moodle i.e. http://www.ahlia.edu.bh/moodle

REFERENCE(S):	<p>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</p> <p>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</p>
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ASSESSMENTS:

Type of Assessment	Description	ILOs ³	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 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 done on computers.	A1, B1,B2, B3, C1,C3	40%
Overall			100%

14. Admissions	
Pre-requisites	ITMS205
Minimum number of students	8
Maximum number of students	20

