COURSE DESCRIPTIONS

Faculty	Science and Information Technology				
Department	Computer Science			**NQF level**	6
Course Title	Web Application Development	**Code**	**501214**	**Prerequisite**	
Credit Hours	3	**Theory**	3	**Practical**	0
Course Leader	Dr. Mohammad Al Refaei	**email**	m.alrefai@jadara.edu.jo		
Lecturers	Dr. Maen Alzubi Mr. Mohammad Al-issa	**emails**	**m.alzubi@jadara.edu.jo** mohammadal-issa@jadara.edu.jo		
Lecture time		**Classroom**		**Attendance**	Fulltime
Semester	Second / 2023-2024	**Production**		**Updated**	2024
Type of Teaching	☑ Face to Face ☐ Blended ☐ Online				

Short Description

This course aims to provide students with the ability and skills to design and develop web applications. In this course, students will gain knowledge of the methods and tools used in web application development. The course explains how the World Wide Web works and the student has the ability to effectively design and implement its services and applications. Topics include learning and using (HTML, CSS, PHP, and SQL), website publishing, website evaluation principles and tools, website design exercises and problems, design methods, programming client-side applications, and active server pages, linking applications with databases, adding flexible content to network applications, CGI Programming and User Interface Programming for Internet Applications.

Course Objectives

- Students will use their programming skills to construct complete end-to-end webpage solutions. This will often be their first opportunity to construct a non-trivial system of software.
- Students will be introduced to several topics covered in more detail in other courses. This introduction serves two purposes:

1. It gives all students exposure to important technologies and components (e.g., web programming, client-server webpage browsing, database systems, and languages).
2. Students will be better prepared to choose follow-on courses that explore some of these topics in much greater detail, improving their ability to tailor their degrees

- Student learns how to build a professional website using HTML
- Student Learns the programming using PHP to create dynamic webpages
- Students learn some basic SQL commands to create and build a server database

By the end of this course, students will learn how to create a fully functional webpage that combines the knowledge of HTML, SQL, and PHP

Course Intended Learning Outcomes (CILOs)
A. Knowledge - Theoretical Understanding
a1. Illustrate basic concepts to build a website and interpret the steps of communication between client and server websites. (K1) a2. Understand how and when to apply HTML, PHP, and SQL script language. (K2)
B. Knowledge - Practical Application
a3. Implement web pages using programming languages such as HTML, MySQL, and PHP, to build a client-server website communication. (K3)
C. Skills - Generic Problem Solving and Analytical Skills
b1. Evaluate PHP code using problem-solving techniques and constraints. (S2)
D. Skills - Communication, ICT, and Numeracy
b2. b3.
E. Competence: Autonomy, Responsibility, and Context
c1.
Teaching and Learning Methods
☑ Face to Face Lectures ☑ Brainstorming ☐Synchronous remote ☐Asynchronous remote ☐ Using Video ☑Discussions ☑ Research Project ☑ Case Study ☐ Field vis ☑ Problem solving
Assessment Methods
☐ Formative Assessment ☑ Quiz ☑ Lab Exam ☑ Homework ☑ Project Assessment ☑ Oral Presentation ☑Midterm ☑Final Exam

Course Contents					
Week	**Hours**	**CILOs**	**Topics**	**Teaching & Learning Methods**	**Assessment Methods**
1.	**3**	**a1**	**Client-Server communication**	**Direct learning**	**Discussion and interaction**
2.	**3**	**a1, a2**	**The Internet and World Wide Web**	**Direct learning**	**Discussion and interaction**
3.	**3**	**a1, a2**	**HTML: Introduction to HTML tags and attributes**	**Direct learning**	**Lab tasks and assignments**
4.	**3**	**a1, a2**	**HTML: Style attributes, Lists, Links, Image.**	**Direct learning**	**Lab tasks**
5.	**3**	**a1, a2**	**HTML: Tables and Forms.**	**Direct learning**	**Lab tasks and assignments**
6.	**3**	**a3**	**CSS, Introduction to PHP**	**Direct learning**	**Lab tasks and assignments**
7.	**3**	**a3**	**PHP Decisions**	**Direct learning**	**Lab tasks and assignments**
8.	**1**		Midterm		**Midterm**
9.	**3**	**a3, b1**	**PHP Loops**	**Direct learning**	**Lab tasks and assignments**
10.	**3**	**a3, b1**	**PHP arrays**	**Direct learning**	**Midterm**
11.	**3**	**a3, b1**	**PHP functions, Errors**	**Direct learning**	**Lab tasks and assignments**
12.	**3**	**a3, b1**	**MySQL Fundamentals, Database CRUD, MySQL Functions**	**Direct learning**	**Lab tasks and assignments**
13.	**3**	**a3, b1**	**MySQL (Data Type, Design, Relationships, Normalization, Administration)**	**Direct learning**	**Lab tasks and assignments**
14.	**3**	**a3, b1**	**PHP/MYSQL 1(connection)**	**Direct learning**	**Lab tasks and assignments**
15.	**3**	**a3, b1**	**PHP/MYSQL 2(connection)**	**Direct learning**	**Lab tasks and assignments**
16.	**2**		**Final exam**		**Final exam**

Infrastructure	
Textbook	PHP and MySQL for Dynamic. WEB. Sites. 4th.Edition. Ullman
References	ISBN-13: 978-0-321-78407-0 ISBN-10: 0-321-78407-3
Required reading	
Electronic materials	http://elearning.jadara.edu.jo/
Other	Any other web programming books

Course Assessment Plan						
Assessment Method		**Grade**	**CILOs**			
			a1	**a2**	**a3**	**b1**
First (Midterm)		30				
Second (if applicable)						
Final Exam		50				
Coursework		20				
Coursework assessment methods	Assignments					
	Case study					
	Discussion and interaction					
	Group work activities					
	Lab tests and assignments					
	Presentations					
	Quizzes					
Total		100				

Plagiarism
Plagiarism is claiming that someone else's work is your own. The department has a strict policy regarding plagiarism and, if plagiarism is indeed discovered, this policy will be applied. Note that punishments apply also to anyone assisting another to commit plagiarism (for example by knowingly allowing someone to copy your code). Plagiarism is different from group work in which a number of individuals share ideas on how to carry out the coursework. You are strongly encouraged to work in small groups, and you will certainly not be penalized for doing so. This means that you may work together on the program. What is important is that you have a full understanding of all aspects of the completed program. In order to allow proper assessment that this is indeed the case, you must adhere strictly to the course work requirements as outlined above and detailed in the coursework problem description. These requirements are in place to encourage individual understanding, facilitate individual assessment, and deter plagiarism.

Updated on 25-02-2024