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| **University of Petra** | شعار جامعة البترا5 - |  |
| Faculty of Information Technology | كلية تكنولوجيا المعلومات |
| Department of Computer Information Systems | قسم نظم المعلومات الحاسوبية |

**Course Syllabus**

**Year: 2015-2016 Semester: (3)**

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| --- | --- | --- | --- | --- |
| Course No. | Course Title | Prerequisite | Co-requisite | **Credit Hours**  **Lectures /Lab.** |
| 602311 | Internet Programming | 602211 | 9600102 | 3:3:2 Lab |

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| --- | --- | --- | --- | --- |
| Instructor Name | E-mail | Office No. | Office ext. | Office Hours |
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| Coordinator's Name: |  |

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| Short Course Description | This course is designed to present the student with the required information and practice related to Web programming. Subjects such as HTML5, (Java Scripts, jquery and anqularjs ), Server-side technology: PHP and popular open source frameworks such as CakePHP 3.4. Students will gain practical skills through a lab work and course project. |

Course Objectives

* To describe the concept of client and server side web applications.
* Design and implement simple web pages using HTML.
* Design and implement dynamic web pages using DHTML
* Design Web forms using Web controls.
* Use server side scripting to develop ASP.Net applications.
* Connect ASP.NET applications with databases using ADO.NET.

**Course Intended Learning Outcomes (ILOs) and their Alignment with Program ILOs, Teaching and Learning Methods, and Assessment Methods:**

**Upon successful completion of this course, students are expected to achieve the following learning outcomes:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course ILOs** | **Program ILOs** | **Teaching and Learning Method** | **Assessment Method** |
| **Knowledge (K)** | | | |
| **K1.**Identify the fundamentals of the Internet and Internet Programming standards, protocols, services, and applications. | A.6 | Interactive lecture +LAB | Final Exam |
| **K2.** Identify the fundamentals of client-side scripting and server-side scripting and client/server architecture. | A.2 | Interactive lecture +LAB | Final Exam |
| **Intellectual Skills (I)** | | | |
| **I1.**Design and develop web based solutions for real world problems. | CS-K.1 | Interactive lecture +LAB+  Projec***t*** | Project evaluation rubrics |
| **Practical skills (P)** | | | |
| **P1.** Use web development tools to implement practical cases to develop a web site using HTML5, JavaScript, PHP, and Open source MVC framework. | I.4 | Interactive lecture +LAB+  Project | Project evaluation rubrics |
| **P2.** Configure the basic Internet services, design, and publish web site to provide dynamic pages. | I.4 | Interactive lecture +LAB+  Project | Project evaluation rubrics |
| **Transferable Skills (T)** | | | |
| **T1.** Discuss and defend the developed solution. | F.1 | Interactive lecture +LAB+  Project | Project evaluation rubrics |

**Course Schedule:**

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| --- | --- | --- | --- |
| Week | **Topic Details** | **Course ILO number** | **Reference (chapter)** |
| **1,2** | Introduction to the Internet, the WWW, and MVC open source Frameworks, Introduction to HTML5 and JavaScript | K1,K2 | Ref 4 |
| **3,4** | jQuery Intro, Query Install, jQuery Syntax, jQuery Selectors, jQuery Events CSS, Introduction CSS, Syntax CSS, Selectors, Backgrounds CSS, Text CSS, Fonts CSS, Links CSS, Lists CSS, Tables CSS, Box Model CSS Border CSS, Outline CSS, Margin CSS, Padding CSS, Dimension CSS, Display CSS, Positioning CSS, Floating CSS, Align CSS, Combinatory CSS, Pseudo-class CSS, Pseudo-element CSS, Navigation Bar CSS, Image Gallery CSS, Image Opacity CSS, Image Sprites CSS, Media Types CS, introduction to less . | K1,K2,P1,P2 | Ref 4 |
| **5** | Angular HOME, Angular Intro, Angular Expressions Angular Modules, Angular Directives, Angular Model Angular Data Binding, Angular Controllers, Angular Scopes, Angular Filters, Angular Services, Angular Http, Angular Tables, Angular Select, Angular SQL, Angular DOM, Angular Events, Angular Forms, Angular Validation, Angular API, Angular W3.CSS, Angular Includes, Angular Animations, Angular Routing, Angular Application | K1,K2,P1,P2 |  |
| **5** | Twitter bootstrap 4 | K1,K2,P1,P2 |  |
|  | **First Exam** |  |  |
| **6,7** | PHP Intro  PHP Install  PHP Syntax  PHP Variables  PHP Echo Print  PHP Data Types  PHP Strings  PHP Constants  PHP Operators  PHP If...Else...Elseif  PHP Switch  PHP While Loops  PHP For Loops  PHP Functions  PHP Arrays  PHP Sorting Arrays  PHP Superglobals PHP Forms  PHP Form Handling  PHP Form Validation  PHP Advanced  PHP Arrays Multi  PHP Date and Time  PHP Include PHP File Handling  PHP File Open/Read PHP File Create/Write  PHP File Upload  PHP Cookies  PHP Sessions  PHP Filters  PHP Filters Advanced  PHP Error Handling  PHP Exception | K1,K2,P1,P2 |  |
| **8** | MySQL Database  MySQL Connect  MySQL Create DB  MySQL Create Table MySQL  Insert Data  MySQL Insert Multiple  MySQL Prepared  MySQL Select Data  MySQL Delete Data  MySQL Update Data  MySQL Limit Data | K1,K2,P1,P2 |  |
| **9** | Getting Started with **CakePHP 3.4** MVC Framework  Installation  Configuration  Routing  Request & Response Objects | K1,K2,P1,P2 |  |
| **10** | Middleware Controllers  Views | K1,K2,P1,P2 |  |
|  | **Second Exam** |  |  |
| **11,12** | Database Access & ORM Using CakePHP | K1,K2,P1,P2 |  |
| **13** | Authentication  Bake Console  Caching Shells,  Tasks & Console Tools  Debugging  Deployment | K1,K2,P1,P2 |  |
| **14** | Email  Error & Exception Handling  Events System  Internationalization & Localization  Logging  Modelless  Forms Pagination | K1,K2,P1,P2 |  |
| **15** | Plugins  REST  Security Sessions  Testing  Validation  Utility Classes  App Class  Collections  Folder & File  Hash  Http Client  Inflector Number  Registry Objects  Text Date & Time  Xml Plugins  Chronos Debug Kit  Migrations  ElasticSearch | K1,K2,P1,P2 |  |
| **16** | **Final Exam** |  |  |

**Assessment Methods and Grading System:**

|  |  |  |
| --- | --- | --- |
| **Assessment method** | **Grade** | **Comments** |
| **First Exam** | **15** |  |
| **Second Exam** | **15** |  |
| **Project+LAB** | **30** |  |
| **Final Exam** | **40** |  |
| **Total** | **100** |  |

**Learning References:**

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| **1- Textbook (s):** |
| Building PHP Applications with Symfony, CakePHP, and Zend Framework  Bartosz Porebski, Karol Przystalski, Leszek Nowak  ISBN: 978-0-470-88734-9  Paperback  576 pages  March 2011 |
|  |
| **2- References:** |
| [R1]Internet and World Wide Web How to Program, Deitel and Deitel, Prentice Hall, 2002, 4th edition  **[R3]** Lecture's notes.  **[R4]**HTML, CSS and JavaScript All in One, Sams Teach Yourself: Covering HTML5, CSS3, and jQuery, 2/E  Julie C. Meloni  ISBN-10: 0672337142 • ISBN-13: 9780672337147 |
|  |
| **3- Other Resources:**  <<Labs, computer resources, lecture rooms needed for the course>> |
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**Course Policies[[1]](#endnote-1)**

* Attendance Policy: University regulations apply to attendance.
* Academic Honesty: Academic dishonesty is an unacceptable mode of conduct, and will not be tolerated in any form at University of Petra. All persons involved in academic dishonesty and plagiarism in any form will be disciplined in accordance with University rules and regulations.

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| **Approved by** | **Name** | **Date** | **Signature** |
| **Coordinator of Curriculum Committee** |  |  |  |
| **Faculty Dean/ Head of Department** |  |  |  |



1. Additional information may be added in this section according to the nature of the course. [↑](#endnote-ref-1)