Arab Academy for Science and Technology & Maritime Transport

University/Academy: Arab Academy for Science and Technology & Maritime Transport
Faculty/Institute: College of Computing and Information Technology
Program: Computer Science / Information Systems / Software Engineering

Form No. (12)
Course Specification

1- Course Data

Course Code:	Course Title:	Academic Year/Level:
CS433	Web Programming	Year 4 / Semester 7
Specialization:	**No. of Instructional Units:**	**Lecture:**
Computer Science	2 hrs lecture 2 hrs lab	

2- Course Aim	This course is a comprehensive introduction of common, primarily open-source, technologies used to develop and maintain server sites on the Web. A variety of client-side and server-side technologies are covered.

3- Intended Learning Outcome:

a- Knowledge and Understanding	**Students will be able to demonstrate knowledge of:** **K2.** Modeling and design of computer-based systems bearing in mind the trade-offs. **K10.** Current developments in computing and information research. • Understand what open-source software is. • know the difference between client-side and server-side web programming • Understand basic HTML tags • Understand new basic HTML5 tags • Identify the properties of CSS (Font-Background-Box model-position) • Know the syntax rule of javascript • Know the basic objects of JavaScript • Identify the methods to create DHTML pages • Know the basics of PHP • Understand how to connect PHP with MYSQL database • Understand how to read and write files using PHP Understand the basic of AJAX
b- Intellectual Skills	<u>**By the end of the course, the student acquires high skills and an ability to understand:**</u> **I5.** Make ideas, proposals and designs using rational and reasoned arguments for presentation of computing systems. **I10.** Define traditional and nontraditional problems, set goals towards solving them, and. observe results. **I11.** Perform comparisons between (algorithms, methods,

techniques...etc).
- Understand the basics of web programming & web editing tools.
- Able to use HTML effectively
- Implement efficient code using Javascript
- Know the limitations of HTML, and Javascript.
- Learn the concepts of using PHP
- Understand the possibilities and limitations of connecting PHP to MySQL Databases

c- Professional Skills	**By the end of the course the student will have the ability to:**
	P2. Implement comprehensive computing knowledge and skills in projects and in deployment of computers to solve position practical problems.
	P3. Deploy the equipment and tools used for the construction, maintenance and documentation of computer applications.
	P6. Design, implement, maintain, and manage software systems.
	P9. Use appropriate programming languages, web-based systems and tools, design methodologies, and knowledge and database systems.
	• Write HTML5 files without using web generation tools.
	• Create web site using HTML and CSS
	• Develop dynamic web pages using JavaScript.
	• Use JavaScript in Building web sites
	• Install and administer an Apache Web Server in a UNIX environment.
	• Use PHP to develop dynamic web sites
	• Access a MySQL Database from a PHP script.
d- General Skills	**Students will be able to:**
	G1. Demonstrate the ability to make use of a range of learning resources and to manage one's own learning.
	G2. Demonstrate skills in group working, team management, time management and organizational skills.
	G7. Show the use of general computing facilities.
	• Design efficient web pages
	• Use advanced tools to create better webpages
	• Be able to run a webserver

4- Course Content		
	1	Write HTML files without using web generation tools.
	2	Specify the difference between client-side and server-side web programming.
	3	Master the basic syntax of JavaScript as a client-side scripting language. perceptual, dynamic and interaction aspects of virtual environments.
	4	Develop dynamic web pages using JavaScript
	5	Describe how server-side scripts work
	6	Install and administer an Apache Web Server in a UNIX environment.
	7	Understand what open-source software is.

	8	Understand what a server-side HTML-embedded scripting language is.
	9	Know the syntax of PHP.
	10	Use PHP to develop dynamic web sites
	11	Access a MySQL Database from a PHP script.

5- Teaching and Learning Methods	Lectures, Labs, Projects, Individual study & self-learning.
6- Teaching and Learning Methods for Students with Special Needs	• Students with special needs are requested to contact the college representative for special needs (currently Dr Hoda Mamdouh in room C504) • Consulting with lecturer during office hours. • Consulting with teaching assistant during office hours. • Private Sessions for redelivering the lecture contents. • For handicapped accessibility, please refer to program specification.

7- Student Assessment:

a- Procedures used:	Exams and Individual Projects
b- Schedule:	Week 7 exam Projects through the semester Week 16Final exam
c- Weighing of Assessment:	7th week exam 30% Projects 40% Lab work 10% Final exam 20%

8- List of References:

a- Course Notes	From the Moodle on www.aast.edu
b- Required Books (Textbooks)	Robert W. Sebesta, *Programming the World Wide Web*, Publisher: Pearson
c- Recommended Books	1. Harvey M. Deitel, Paul J. Deitel, Tem Nieto, Harvey Deitel, Paul Deitel, *The Complete Internet and World Wide Web Programming Training Course* (1st Edition) Prentice Hall PTR; Package edition (May 3, 2000) 2. Luke Welling, Laura Thomson, *PHP and MySQL Web Development*(3rd Edition), 3. Jason Gerner, Morgan Owens, Elizabeth Naramore, Matt Warden, Jeremy Stolz , *Professional LAMP:*

	Linux, Apache, MySQL and PHP Web Development Eric Rosebrock, Eric Filson, *Setting Up LAMP: Getting Linux, Apache, MySQL, and PHP Working Together*
d- Periodicals, Web Sites, ..., etc.	

Course Instructor:

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Head of Department:

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