INTERNET TECHNOLOGY
IT 223

I – Basic Course Information

Programme(s) on which the course is given:	Bachelors in CS and IT
Major or minor element of programmes:	General
Department(s) offering the programme(s):	Information Technology Department
Department offering the course:	Information Technology Department
Academic level:	200 Level
Semester in which course is offered:	First (Fall) Semester
Course pre-requisite(s):	IT222 (Computer Networks 1)
Credit Hours:	3

Contact Hours Through:

- Lecture: 3.0
- Tutorial: 0.0
- Practical: 1.5
- Total: 4.5

Authorization date of course specification:

II – Professional Information

1. Overall Aims of Course

The objective of the course is understanding the essentials background of the Internet (Protocols, domains, addressing, infrastructure, and accessing) to producce Web-Enabled applications (using Open Source Software).

2. Intended Learning Outcomes of Course (ILOs)

a. Knowledge and Understanding

, On completing the course students should be able to:

a1- Overview of: What is the Internet?, TCP/IP protocol suite, Web technology, Web features, How to connect to the Internet, Internet protocols, World Wide Web, Web search engines, A Packet trip thru the Internet, Internet Success and Limitation ;.

a2- Imparting the minimum number of HTML tags that you may need to develop simple web pages, use Cascade Stylesheet, Publish A Web Page, Page Developing Tools, Differentiate between Static vs. Dynamic Pages, and Discuss Some Web Design Concepts.

a3- Installing the used (Open Source) Software - PHP and MYSQL under Apache web server, Run the web server “Apache”, Hosting a web page under the “Apache” web server, Using a Simple File Transfer, Know of the Open Source Software concepts and motivations, and Acknowledge the importance of some concepts of the Free and Open Source Software (FOSS).

a4- Deliberating: What is PHP?, The Life-cycle of the PHP, Why PHP?, Getting Started with PHP, A Bit About Variables, HTML Forms, Building A Simple

Application, Programming Languages Statements Classification, Program Development Life-Cycle, Structured Programming, and Object Oriented Programming Language.

a5- Investigating: What is MYSQL ? Why ? How ?, Where to find your data of MYSQL?, Dealing with MYSQL shell, Dealing with MYSQL using A PHP script, MYSQL and PHP Case studies, Using session control and login, and Login Session Using MYSQL case study.

a6-Grasping: What is WML ?, Output specific headers via PHP in order to serve WML-enabled decks, Pass variables between WML decks, Manipulate variables contained within WML decks, Make use of basic MySQL functions to provide for database interaction with the wireless web, and How to connect real mobiles to a WAP server?.

b. Intellectual/Cognitive Skills

On completing the course students should be able to:

b1- Building/hosting/managing web sites.

b2- Understanding the underlying concepts

b3- Learn not how to use the tools, but rather how to create the tools – in PHP and MySQL.

b4- Refreshing background Programming

b5- develop some real web projects thru introducing: Using PHP and MySQL for Large Projects, Developing User Authentication and Personalization, Developing A Shopping Cart, Developing A Content Management System, Developing A Web-Based Email Service, Developing A Mailing List Manager, Developing Web Forums, and Creating a Bulletin Board System

c. Subject-Specific Practical Skills

The most useful practical skills, techniques, and capabilities developed are:

c1- Ability to implement learned web designing and developing concepts.

c2- PHP and MySQL programming

c3- WAP programming

c4-

c5-

d. General and Transferable Skills

The most important general and transferable skills developed in the course are:

d1- Ability to work in teams.

d2- Solving practical problems.

d3- Ability to design and implement web-enabled projects.

d4- Work with Open Source Software`

d5-

3. Course Contents

	Topic	No. of hours
1-	Introduction to Internet Technology	3
2-	Starting A Web Site	3
3-	Cascade Stylesheets	3
4-	Open Source Vehicle Setting	6
5-	PHP Fundamentals	6

6-	PHP More to Go	6
7-	MYSQL Fundamentals	6
8-	MYSQL More to Go	3
9-	Wireless Markup Language (WML)	3
10-	Developing Practical PHP and MySQL Projects	3
11-		
12-		

4. Teaching and Learning Methods

Select method by checking in the box in front of the method, and type the ILOs' codes in the field opposite the method.

Teaching/Learning Method	To teach/learn the following ILO's
☒ Lectures & Seminars	a1,a2,a3,a4,b1
☐ Tutorials	
☒ Computer-lab Sessions	b2,b3,c1,c2
☒ Practical lab work	b2,b3,c1,c2,d2,d3
☒ Reading Materials	a1,a2,a3,a4,b1,b2
☐ Web-site Searches	
☒ Independent Work	b1,b2,b3,d2,d3
☒ Group Work	b2,b3,d1,d2,d3
☐ Case Studies	
☐ Presentations	
☐ Simulation Analysis	
☐ Problem-based Learning	
☐ Others (Specify):	

5. Assessment Methods

Select method by checking in the box in front of the method, and type the ILOs' codes in the field opposite the method.

Assessment Method	To assess the following ILO's	Assessment Weight
☒ Unseen Exams	a1,a2,a3,a4,b1,b2,b3	
☐ Open book Exam		
☐ Take home Exam		
☒ Quizzes		
☐ Course Work		
☒ Report Writing		
☒ Case Study Analysis	d2, d3	
☒ Oral Presentations	c2, c3	
☒ Practical	b2,b3,c1,c2,d2,d3	
☒ Group Project	b2,b3,c1,c2,d1,d2,d3	
☐ Individual Project		
☐ Others (Specify):		

6. List of References

6.1- Essential books (text books)

Hesham N. Elmahdy, "Internet Technology: Developing Web/WAP Enabled Application ," ISBN: 977-17-3950-6, Helwan University Press, 2006.

6.2- Course notes:

http://www.h-elmahdy.net/it223

6.3- Recommended books

• Michael Glass, Yann Le Scouarnec,Elizabeth Naramore, Gary Mailer, Jeremy Stolz, and Jason Gerner, "Beginning PHP, Apache, MySQL Web Development," Wiley Publishing, Inc.,ISBN: 0-7645-5744-0, 2004.

* MySQL Reference Manual

6.4- Periodicals, Web sites, etc …

http://www.mysql.com/

http://www.w3schools.com/php/

7- Facilities required for teaching and learning

White board, Data show, Computers lab.

Course coordinator: Dr. Hisham Elmahdy

Head of Department: Prof. Dr. Hoda Onsi

Date: June, 2007