PRINCE MOHAMMAD BIN FAHD UNIVERSITY

COLLEGE OF INFORMATION TECHNOLOGY

WEB PROGRAMMING

Syllabus code: ITAP 1312

SPRING 2010

CONTENTS

Course Information

Course number	:	**ITAP 1312**
Course name	:	**Web Programming**
Credit hours	:	**3 (3, 2)**
Course Prerequisites	:	GEIT 1411: Computer Science I
Course co-requisites	:	NONE
	:	

Instructor Information

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Or by appointment

Course Overview

This course is designed to provide the students with an introduction to World Wide Web programming. It introduces the student to the techniques used in programming web pages for interactive content. It specifically addresses the basic elements of AJAX -*Asynchronous JavaScript and XML* to design web pages that dynamically interact with databases that reside on a server. The course begins by reviewing basic web technologies such as HTML, XHTML, CSS style sheets, and explores the use of event-driven programming in JavaScript to add interactive elements such as buttons and text fields to web pages. Students will be able to use AJAX tools to build web pages that connect to servers like Google to dynamically access data (maps, search results, videos, images, etc).

Course Content

1. Detailed Course Description

Web Programming is designed to provide students with an introduction to World Wide Web programming. It introduces the student to the techniques used in programming web pages for interactive content. It specifically addresses the basic elements of AJAX - *Asynchronous JavaScript and XML* to design web pages that dynamically interact with databases that reside on a server. The course begins by reviewing basic web technologies such as HTML, XHTML, CSS style sheets, and explores the use of event-driven programming in JavaScript to add interactive elements such as buttons and text fields to web pages. Students will be able to use AJAX tools to build web pages that connect to servers like Google to dynamically access data (maps, search results, videos, images, etc).

2. Requirements Fulfilled

This course satisfies three hours of the requirements for degrees in Information Technology and Computer Science.

3. Topics to be Covered

A. Introduction to Computers and the Internet
B. Web Browser Basics
C. Web 2.0
D. Introduction to XHTML
E. Cascading Style Sheets (CSS)
F. Java Script
   - Introduction to Scripting
   - Control Statements I
   - Control Statements II
   - Functions
   - Arrays
   - Objects
   - Events
G. Document Object Model (DOM)

4. Learning Outcomes – Objectives

By the end of the course the students should be able to:

A. To learn the fundamental principles of developing web pages.

B. To develop the XHTML programming skills necessary for web authoring.

C. To learn Cascading Style Sheets (CSS) for supplying stylistic information to web pages.

D. To learn JavaScript for creating interactive web pages.

E. To develop the programming skill necessary to develop web pages using different logic structures.

F. To learn Asynchronous JavaScript and XML (AJAX) for enhanced web interaction and applications.

5. Tentative Weekly Schedule

Week#	Lecture (3 hours/week)	Lab (2hours/week)	Projects/ Readings
Week #1	▪ Syllabus ▪ Introduction to Computers and the Internet	Laboratory exercises	Read Chapter 1
Week #2	▪ Web Browser Basics: Internet Explorer and Firefox ▪ Dive into® Web 2.0	Laboratory exercises	Read Chapter 2 Read Chapter 3
Week #3	▪ Dive into® Web 2.0 ▪ HTML Basics	Laboratory exercises	Read Chapter 3 Hand-outs
Week #4	▪ Introduction to XHTML	Laboratory exercises	Read Chapter 4
Week #5	▪ Introduction to XHTML ▪ Cascading Style Sheets™ (CSS)	Laboratory exercises	Read Chapter 4 Read Chapter 5
Week #6	▪ Cascading Style Sheets™ (CSS)	Laboratory exercises	Read Chapter 5

Week #7	**Exam#1*(Chapters 1, 2, 3, 4 & 5)*** ▪ JavaScript: Introduction to Scripting	Laboratory exercises	Read Chapter 6
Week #8	▪ JavaScript: Introduction to Scripting	Laboratory exercises	Read Chapter 6 Semester Project Assignments
Week #9	▪ JavaScript: Control Statement I	Laboratory exercises	Read Chapter 7
Week #10	▪ JavaScript: Control Statement II	Laboratory exercises	Read Chapter 8
Week #11	**Exam#2*(Chapters 6, 7 & 8)*** ▪ JavaScript: Functions	Laboratory exercises	Read Chapter 9
Week #12	▪ JavaScript: Arrays	Laboratory exercises	Read Chapter 10
Week #13	▪ JavaScript: Objects	Laboratory exercises	Read Chapter11
Week #14	▪ Document Object Model (DOM): Objects and Collections	Laboratory exercises	Read Chapter 12 Group Project presentations
Week #15	▪ JavaScript: Events	Laboratory exercises	Read Chapter 13 Group Project presentations
Final Exam			

Educational Resources

A. Required Textbook
Deitel, J. & Deitel, M. (2009). *Internet & World Wide Web How To Program*; 4tht *edition.* Pearson Education.

B. Alternative Textbook

NONE

C. Supplemental Print Materials
NONE
D. Supplemental Online Materials
E. Instructors Materials on Blackboard

Assessment Strategy

1. Student grade elements
   Class participation & presentation
   Weekly networking laboratory exercises
   Final project
   Exams
   - Exam#1 & Exam#2
   - Final Exam
2. Evaluation

Class participation & presentations	10 %
Weekly laboratory exercises	20 %
Final project	30 %
Exam#1 & Exam#2	20 %
Final Exam	20 %
Total	**100%**

3. **Grading Scale**

A+	**96 - 100%**
A	**90 - 95 %**
B+	**86 – 89 %**
B	**80 – 85 %**
C+	**76 – 79 %**
C	**70 – 75 %**
D+	**66 – 69 %**
D	**60 – 65 %**
F	**Below 60 %**

Attendance & Make-up exams

1. Absences during the DROP/ADD week count.
2. **Make-up**:
   Exam#1, Exam#2 &Final exam – different from and harder than in-class exams.
3. **Late submissions** – **score reduced by 10 points** after due date. No work will be accepted after one week after the due date.
4. Excused absences: There are no excused absences. All absences are recorded as part of the Attendance Policy. Hence, you are encouraged to "save up" your absences for "unavoidable circumstances"
5. Tardiness: Students are considered tardy if they are not present before the classroom door is closed both at the beginning of the class and following the break. Tardiness is counted as ½ an absence. Students are requested not to interrupt class proceedings by trying to enter once the class has begun (as indicated by the "closed door".)

Academic Honesty and Integrity

1. The instructor strictly adheres to all university policies regarding academic integrity.
2. Academic dishonesty includes but not limited to the following:
   i. Cheating on examination or other academic work,
   ii. Plagiarism and
   iii. Collusion which means unauthorized collaboration with another in preparing work offered for academic credit.
3. Academic dishonesty will not be tolerated and the PMU academic regulations will be strictly applied.
4. Unless specifically expressed by the instructor, collaboration between students in this course, between students in previous courses, external assistance in any form or presenting resources/research without proper citation which has been developed by another individual or organization is strictly prohibited. **ALL WORK MUST BE THE RESULT OF YOUR OWN EFFORTS**.

Miscellaneous

1. Mobile phones: A student whose mobile rings during class will be asked to leave the classroom and will receive ½ an absence. Should this happen during an exam, the student will not be allowed to retake the exam at another time, while at the same time receiving a full absence.
2. Eating / Drinking / Smoking: students are requested to refrain from engaging in these activities while in class.