

OA 2096 - Advanced Web Design

Instructor:

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Classroom:

A313

Times:

Tue., Thur. and Fri. 13:00 - 14:20

COURSE DESCRIPTION:

This course will expand upon the knowledge gained in OA 2095, where static web sites were built with XHTML and CSS. Students will learn to use client-side scripting, to make their websites dynamic. We will look briefly at XML and then Server-side scripting will be introduced, so that students realize the requirements for processing forms. Students will gain a basic understanding of what is involved in building and maintaining a data-base driven, E-Commerce website. Finally we will examine SVG(Structured Vector Graphics) and Flash.



BASIS:

The basis for this course is to start from an advanced knowledge of static web design, which students should already have. The goal is to build on that foundation, a basic level of knowledge about client-side programming, server-side programming, and database. The reason for this is that E-Commerce enabled web sites require all of those components. E-Commerce web sites must be interactive, dynamic and database driven.

A solid understanding of XHTML and CSS is needed to succeed in this course. In addition, some experience with database design is a definite asset. Students are not expected to become expert programmers, but will exit with a global understanding of the component parts of an E-Commerce web site. They will know how to assess the needs of an E-Business and where to look for solutions.

PREREQUISITES:

A solid understanding of XHTML and CSS gained through the successful completion of OA 2095 with a grade of 5 or better (or permission of instructor). Anyone attempting this course without a grade of at least 5 in OA2095 should be aware that they will be expected to know XHTML and CSS. Those languages will not be taught again in this course. You may need to review OA 2095 on your own in order to understand some of the concepts taken for granted in OA 2096.

GENERAL OBJECTIVES:

Upon exit, successful students will:

1. understand the fundamental difference between client-side and server-side scripting, and the capabilities, advantages and disadvantages of each.
2. have a basic understanding of the document object model.
3. understand the basic syntax and objects of JavaScript and realise that there are different languages and versions (JavaScript, JScript, ECMAScript).

4. be capable of dynamically controlling stylesheet properties using JavaScript.
5. understand that there are choices available for server-side technologies (e.g. asp, jsp, php, ColdFusion, and so on).
6. have an elementary knowledge of one of the above choices, namely asp (Active Server Pages)
7. understand the basic idea of database queries and SQL.
8. have a general idea of XML.
9. be familiar with SVG and Flash.

RESOURCE MATERIALS:

There is no textbook required.

Online resources will be used. Instructions and notices will be put on this website from time to time. But unlike OA 2095, I will not be posting all of the lesson notes here. So visiting this website is not a substitute for attending class. However, there is a site on the web which we will make use of as an online textbook. It is at www.w3schools.com.

CONDUCT OF COURSE:

The course is delivered live in computer lab A313 in the winter semester. Attendance is required. Extra notes will be posted online from time to time, but will not be a substitute for coming to class. The content is divided into three modules: At the end of each module there will be an assignment due, and a test.

COURSE CONTENT:

Module 1 - Client-Side Scripting

Introduction to JavaScript JavaScript Syntax The Document Object Model The Window Object The Navigator Object The Screen Object The Document Object Variables Events, Arguments, Event Handlers and Parameters Control Logic Working with Strings The Date Object
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Module 2 - XML, Server-Side Scripting, and Database-Driven Websites

Introduction to XML Importing XML Data Review of Database Concepts Building a Database for a Simple Retail Web Store Introduction to SQL Introduction to ASP Collecting Data from a Web Form
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Module 3 - SVG and Flash

Introduction to SVG
Introduction to Macromedia Flash
Embedding a Flash Object in an HTML document
Building a Flash Website

GRADING SYSTEM

GPRC uses a letter grade system as explained in the College calendar. On a percentage basis, you will be assessed as follows:

Module 1	Web Site Assignment	10
	Module Test	15
Module 2	Assignment	10
	Module Test	15
Module 3	Assignment	15
	Final Test	35

TOTAL 100

Your percentage score will be converted to a letter grade as follows:

Weighted Average %	Letter Grade
94 - 100	A+
90 - 93	A
85 - 89	A-
80 - 84	B+
76 - 79	B
72 - 75	B-
68 - 71	C+
64 - 67	C
60 - 63	C-
55 - 59	D+
50 - 54	D
0 - 49	F