

Intermediate Web Development

ITP 404x (3 Units)

Objective Database-driven applications development for the enterprise using Internet communications and server-side technologies, including active server pages, PHP scripting, XML and mobile devices.

Concepts Approaches for creating dynamic web pages. Various web servers. The concept of server-side scripting. Differences between CGI programming and Active Server Pages. Active Server Pages basic objects. The concept of collections and server-side includes. Programming with VBScript and PHP. The concept of compiled web server programs.
Theory of web database processing. Back-end database servers. Differences between the Microsoft Access 2000 and MySQL database management systems. Introduction to XML. Programming mobile devices using WML and scripting.

Prerequisite ITP204x

Lecture 2.0 hrs/week

Lab 3.0 hrs/week

Textbook 1. Internet & World Wide Web How to program, Second Edition, by Deitel & Deitel, Prentice Hall, ISBN# 0-13-030897-8

Grading The following point-structure will be used in determining the grade for the course. Final grade will be based upon the total points received, the highest total in the class, and the average of the class.

Projects	90
Quizzes	40
Midterm	50
Final Project	50
Total	230

- Policies**
- Make-up policy for exams: In order to make up for a missed exam, the student must provide a satisfactory reason along with proper documentation. Usually make-ups are allowed only under extraordinary circumstances.
 - Projects: It is YOUR responsibility to turn in your lab projects on, or before, the deadlines as set by the instructor. IT IS NOT THE RESPONSIBILITY OF THE LAB TA!
 - Late Projects: Late submission of projects will lead to loss on point, so please turn in your projects on time! No projects will be accepted after 2 weeks beyond the project's original due date. Everything regarding a project should be settled within 2 weeks of the project's due date.
 - Though working together is encouraged, the projects must be your own effort. "Duplicate" projects will all receive zero points and possible referral to the Office for Student Conduct.

- All students should read, understand and abide by the University Student Conduct Code
<http://www.usc.edu/dept/publications/SCAMPUS/governance/gov03.htm>

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Course Outline

Week 1 – Understanding XHTML

- Differences between HTML and XHTML

Reading Assignment: *Chapter 4*

Week 2 – XHTML in depth

- Headers, Linking, Images, Unordered Lists, Special Characters
- Nested and Ordered Lists
- Table Formatting
- Basic and Complex Forms
- Image Maps, meta Elements, Nested Framesets

Reading Assignment: *Chapter 5*

Project: #1 :XHTML

Week 3 – Review of Cascading Style Sheets

- Inline Styles
- Embedded Styles, Conflicting Styles
- External Style Sheets
- CSS Validation Service
- Positioning Elements, Background, Element Dimensions
- User Style Sheets

Reading Assignment: *Chapter 6*

Project: #2: CSS

Week 4 – Basics of VBScripting

- Variables, Constants
- Control Structures
- Subprograms
- Objects and Classes
- Event Procedures
- Creating Cookies

Reading Assignment: *Chapter 24.*

Project: #3: VBScript programming

Quiz #1

Week 5 – Server-side Scripts

- Active Server Pages
- Displaying Database Data in an ASP
- Debugging ASP scripts
- Testing ASP scripts
- Data Types
- Creating modules
- Creating Objects from Classes

Reading Assignment: *Chapter 25 first part*

Project: Work on Project #4: ASP

Week 6 – Databases

- SQL
- MySQL
- DBI and ADO

Reading Assignment: *Chapter 22*

Project: #4: ASP

Week 7– Active Server Pages

- ASP Objects
- File System Objects
- Session Tracking and Cookies
- Accessing a database from ASP
- Server-Side ActiveX Components

Reading Assignment: *Chapter 25 second part*

Project: Work on the Midterm Project

Week 8 - Midterm

Demonstrate Midterm Project to the Instructor

Reading Assignment: *Chapter 21: Web Servers(IIS, PWS, Apache)*

Quiz #2

Week 9 – XML

- XML Namespaces
- DTDs and Schemas
- MathML
- Document Object Model
- XSL
- BizTalk and SOAP

Reading Assignment: *Chapter 20*

Project: #5: XML + XSL

Week 10 – Case Study: XML and ASP

- Message Forum Documents
- Forum Navigation. Adding Forums

Reading Assignment: *Chapter 26*

Project: Work on #6 ASP + MS Access 2000 Database

Week 11 – Case Study: XML + ASP (continued)

- Forum XML Documents
- Posting Messages

Reading Assignment: *Chapter 26 continued*

Project: #6: ASP + Microsoft Access 2000 DBMS

Quiz #3

Week 12 – PHP Programming Basics

- Sample programs
- String Processing and Regular Expressions
- Environment Variables
- Form Processing and Business Logic
- Operator Precedence

Reading Assignment: *Chapter 29 first part*

Project: #7: PHP

Week 13 – PHP and MySQL

- Connecting to a Database
- ODBC
- Verifying a Username and Password
- Cookies

Reading Assignment: *Chapter 29 second part*

Project: Project #8: MySQL

Week 14 – Wireless Internet and mBusiness

- Identifying User Location
- Wireless Marketing, Advertising and Promotions
- Wireless Payment Options
- Privacy Issues
- International Wireless Communications
- WAP and WML

Reading Assignment: *Chapter 23 first part*
Project: Work on Project #9: WML and WMLS

Week 15 – Wireless Script Programming

- Creating WML documents
- Basics of WML scripting
- String Object Methods
- WAP 2.0, cHTML, J2ME, BREW, Bluetooth Technology

Reading Assignment: *Chapter 2 3second part*

Project: #9: WML and WMLS

Quiz #4

Week 16 – **FINAL EXAMINATION**