

Proposed University-wide IT Minor

MGMT 422b: Web-Based Systems Development

Course Description: Due to recent technology advancements, there is a growing demand for both client-server and web-based information systems development. This course covers Web-Based Database Systems Design and Development. The details include distributed computing models, a survey of web technologies, VBScript and JavaScript for dynamic web contents and client-side validation, ActiveX Components, Java Applets, Structured Query Language (SQL), and Active Server Pages programming. Overall, this course consists of two important modules: Dynamic web user interface design and web-database transaction programming. The first module consists of HTML, DHTML, Multimedia Processing, VBScript, JavaScript, Java Applets, and ActiveX components. The second module consists of relational database concepts, SQL, and Active Server Pages, as well as distributed objects and components.

Course Objectives

After successfully finishing this course, the student must be able to:

- 1) Understand distributed computing architectures such as CORBA, DCOM, and Enterprise Java Beans
- 2) Design web user interface and dynamic web pages using DHTML, VBScript, and JavaScript
- 3) Command a relational database system using Structured Query Language
- 4) Develop web-based transaction systems using Active Server Page Objects and Components.

Assessment: This course will require three major exams, 12 weekly assignments, two projects, and regular attendance. These course components contribute to the above learning objectives specified by the following table:

	Distributed Computing	Web User Interface	Databases	ASP Programming
Test 1	× (0.2)	× (0.8)		
Test 2		× (0.4)	× (0.6)	
Test 3		× (0.2)	× (0.2)	× (0.6)
Homework	× (0.1)	× (0.3)	× (0.3)	× (0.3)
Project 1		× (1.0)		
Project 2		× (0.2)	× (0.2)	× (0.6)

- **Course Number:** MGMT 422b
- **Course Title:** Web-Based Systems Development
- **Catalog Description:** This course covers Web-Based Database Systems Design and Development. The details include distributed computing models, a survey of web technologies, VBScript and JavaScript for dynamic web contents and client-side validation, ActiveX Components, Java Applets, Structured Query Language (SQL), and Active Server Pages programming.
- **Prerequisites:** MGMT345b and MGMT380b
- **Course Outline**

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- 5) Understand distributed computing architectures such as CORBA, DCOM, and Enterprise Java Beans
- 6) Design web user interface and dynamic web pages using DHTML, VBScript, and JavaScript
- 7) Command a relational database system using Structured Query Language
- 8) Develop web-based transaction systems using Active Server Page Objects and Components.

Textbook and References:

- Scot Hillier and Daniel Mezick, *Programming Active Server Pages*, Microsoft Press, 1997.
- Paul Cassel, *Teach Yourself ACCESS 97 in 14 Days*, Fourth Edition, SAMS Publishing, 1996.
- David Kosiur, *Understanding Electronic Commerce*, Microsoft Press, 1997
- Michael Amundson, *Using Visual InterDev 6*, QUE, 1999
- Liping Liu, *Web-Based Systems Development*, Lecture Notes, Southern Illinois University, 1999

Software:

- Windows 2000 Server with Internet Information Server 5
- Visual InterDev 6

Weekly Schedule:

- Week 1: Inter-Networking
- Week 2: Distributed Computing Architecture
- Week 3: Web Programming Tool: Visual Interdev
- Week 4: Web User Interface Design
- Week 5: Client-Side Scripting: VBScript
- Week 6: Client-Side Scripting: JavaScript
- Week 7: Dynamic HTML, ActiveX Controls, Cascading Style Sheets
- Week 8: Relational Database Concepts
- Week 9: SQL: Select Queries
- Week 10: SQL: Insert and Update Queries
- Week 11: ASP: Session Control
- Week 12: ASP: Objects
- Week 13: ASP: Components
- Week 14: ASP: A complete Project
- Week 15: Final Comprehensive Test

Grading: Your final grade will be calculated by the following formulas and the grade menu:

- 20% (Homework and Quizzes) + 20% (TEST 1) + 20% (TEST 2) + 20% (TEST 3) + 10% (Project) + 10%(attendance) + bonus points
- A+ = 100% and above; A = 93-99%; A- = 90-92%; B+ = 87-89%; B = 83-86%; B- = 80-82%; C+ = 77-79%; C = 73-76%; C- = 70-72%; D = 60-69%; F = 59% and less

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Homework	× (0.1)	× (0.3)	× (0.3)	× (0.3)
Project 1		× (1.0)		
Project 2		× (0.2)	× (0.2)	× (0.6)