



MANA 125 WEB-BASED APPLICATIONS DEVELOPMENT

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COURSE DESCRIPTION

The course focuses on designing and developing Web-based applications using a variety of programming languages and tools. Students will be exposed to Internet application development architecture. Class projects include developing business-to-consumer (B2C) and business-to-business (B2B) applications, among others.

We will learn to create web pages using HTML specifically XHTML language. Topics also include tables, frames and also form creation in HTML. We will learn design concepts in cascading style sheets. We will then venture into web scripting with Java scripts, the primary client-side scripting language of the Internet. We will also review object oriented programming paradigm. We then jump into PHP, one of the world's most popular programming languages for web development. It is a flexible, scalable and easy to program language. PHP is currently used in more than fifteen million web sites and you will learn as part of the curriculum what this language is all about. With increased familiarity on PHP, we will introduce MySQL, an open source and reliable database management system that is rapidly acquiring a world-wide user base.

The goals for the class is as such are that on completion of the course, students will understand the challenges, technologies, and issues in developing and deploying Web-based applications. Also, the student will be able to apply the systems approach to business problems; be part of a team that helps solve a business problem that involves information technology; and be able to improve their oral, written and group communication skills with in-class participation and final group presentation.

Prerequisite: MANA121 or COSC 060 or GEEN 051 or instructor approval

TEXTBOOK AND MISCELLANEOUS

We will officially not use a textbook for this course. Materials will be provided with lecture notes, power point slides and also from the internet. However, each one is to purchase an external hard drive so that you have all your files together at the same time. Jump drives have limited capacity and therefore, I opted for the external drive instead. I think you can use a jump drive during the early part of the semester with any problems.

COURSE PLAN

The approach I will be using for this course is to use small in-class exercises for classroom discussion together with homework assignments. The small exercises are to be developed during class. You can expect at least one exercise to be completed for every lecture. In addition, you will have 4 larger homework assignments that synthesize the knowledge that you have learned so far. There will be a final project that will require a considerable amount of time to complete.

You are required to turn in all assignments for full credit. All work will be graded individually. Each student is allocated a total of 3 late regular days for the semester. You can use these late days for any assignments except the final project. Use this sparingly as I foresee some of you needing the extra days later in the semester. The short and long exercises are intended to give you the practice and experience necessary to understand the course materials. You will be tested on your knowledge of the work and materials covered in class on the exams.

GRADING

Grades will be based on the university grading system. Occasionally, if the average scores are lower, I will adjust the curve downward to accommodate the lower scores. However, each component of the overall grade is not curved. I have been able to adhere to this curve so far. *The final grade will be based on your performance with respect to your classmates.*

A	93 - 100	C	73 - 77.99
AB	89 - 92.99	CD	68 - 72.99
B	84 - 88.99	D	60 - 67.99
BC	78 - 83.99	F	Below 60

Your grade will depend on your performance on the various components and the corresponding weights described below:

Midterm Exam 1:	200 points	4 Assignment	200 points
Class Exercise	110 points	Final Project	200 points
Coding independence	020 points		
Total	730 points		

CLASS EXERCISES AND ASSIGNMENTS

There will be small focused exercises to be completed in class that will augment the lecture. 110 points are allocated for these exercises that are to be completed throughout the semester. Also, an extensive amount of time is required to complete the larger assignment. You can expect to do significant amount of computer work every week in order to complete the assignments on time. Try and plan ahead so you can pace yourself time-wise with the other courses that you are currently taking.

Important Due Dates:

All exercises are to be completed in classes unless specified by the instructor (under some circumstances, exercises can be completed at the end of the week). Failure to complete the exercises assigned during class will result in zero credits for the exercise.

Homework due dates: February 6, February 20, March 4, April 15

Midterm exam: March 18.

CLASS ATTENDANCE AND POLICY

I will follow the university's policy on attendance and that students can be dropped from the course at the instructor's discretion **without being informed**. If the number of absence in hours is equal to **two weeks of class periods** including the first week of class, even if you have not registered then, the student will be withdrawn from the course, earning a grade of WA. The university does not distinguish between authorized and unauthorized absences. **Attendance will be taken regularly during the semester.**

Arriving late to class (unless pre-arranged at the beginning of the semester) sometimes cannot be avoided however arriving late to class on a regular basis is disruptive and can cause you to miss important information. Also, all **cell phones are to be turned off** and **no text messaging is allowed** during class. If I see this as an ongoing problem, you will be warned and could also result in lowering of a grade, e.g. from an AB to B. Other incidences that are distracting to the class such as walking in and out of the class to attend to matters will be subjected to the same penalty.

SPECIAL NEEDS

Please inform me during the first week of class if you have any conditions that may limit or affect your ability to participate in this course so that we can make necessary arrangements. You may also contact the Office of Student Educational Services (OSES), in AMU 317 (8-3270) for more information (see also: <http://www.marquette.edu/oses/>).

EMERGENCY PLAN

Every Marquette University campus building has emergency shelter and evacuation plans. Please familiarize yourself with the plans of each building in which you take classes or attend meetings. Make sure to note the routes to the lowest level of the buildings for shelter during inclement weather, as well as exits from the buildings in the event of fire or other emergency.

TENTATIVE SCHEDULE

We'll divide the semester into 4 main parts

Part 1: Web page development with HTML including tables, frames and cascading style sheets.

Part 2: Application development with javascripts and object-oriented programming paradigm.

Part 3: Application development with PHP.

Part 4: Web-based database application development with mySQL.

FINAL PROJECT

For your final project you are going to construct a web-based database application with PHP using mySQL. The descriptions for the final project will be provided during the semester.

Topics to be covered

- 1: xHTML and Web Pages
- 2: Images and Tables
- 3: Background and Forms
- 4: Cascading Style Sheets
- 5: Color Scheme
- 6: Cascading Style Sheets – Block Level
- 7: Introduction to Javascripts
- 8: Processing HTML Forms
- 9: Conditions and Math Objects
- 10: With and This
- 11: Loops and Arrays
- 12: Return Functions and More Arrays
- 13: Time Object and Image Roller
- 14: Object Oriented Programming
- 15: Midterm Review
- 16: Midterm Exam
- 17: Introduction to PHP: Hypertext Preprocessor
- 18: Validating Forms and Loops
- 19: Accessing Relational Database using MySQL
- 20: Working with Database Result Sets
- 21: Interactive Pages: Searching
- 22: More Interactive Pages
- 23: Updates with forms
- 24: Authentication: Working with Logins and Sessions