IT 202 - Internet Applications

1. Opening Note

This section of IT 202 is offered via "Canvas". The material covered will be the same as in the regular sections of IT 202. A substantial time investment into the course, on the order of 5-7 hours a week or more, must be expected (this includes watching the videos, participating in the learning management system discussions, and doing projects).

Discussions, weekly homework, and projects will take place continuously in “Canvas”, NJIT's Learning Management System. You will be expected to sign on-line at least two times a week to view current/new activity.

It is my goal to give you as much information via this syllabus which I expect will remain unchanged. Should there be any need to make any modifications we will discuss as a group and resolve.

2. Personnel

Instructor: Maura Ann Deek

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3. Course Overview Title: Internet Applications

Credits: 3

Prerequisite: CS100 or CS113 or CS115 or a course in a high-level programming language as approved by the department

Description: This course presents the concepts and software technologies that underline web-oriented, three-tier software architectures and applications. The course will cover the implementation of web applications covering frontend, backend, and data layers. Topics discussed will range from markup and styling using HTML and CSS, frontend client-side scripting languages using JavaScript and jQuery (with usage of AJAX), backend/server-side scripting using PHP using Apache and database storage/manipulation using MySQL and SQL. This course will use a hands-on, guided development/milestone approach to develop a fully functional web application by semester’s end.

4. Topics

- Fundamentals
- Introduction to HTML/HTML5/XHTML
- Cascading Style Sheets
- The Basics of JavaScript
- JavaScript and HTML Documents
- Dynamic Documents with JavaScript
- PHP
- MySQL and SQL
- PHP and MySQL
- Introduction to AJAX and jQuery
- Web Application Development
- Cookies and Sessions
- Networked Application Security and Standards and Interoperability, Security Methods

5. Textbooks

OPTIONAL /SUPPLEMENTAL

- Sebesta, Robert W., Programming the World Wide Web Eighth Edition, Addison Wesley.
- Ullman, Larry, PHP and MySQL for Dynamic Web Sites: A Visual Quickpro Guide Fifth Edition Peachpit Press

6. Assignments

Reading:

It is required that you read the textbook chapters in the above required texts. It is recommended that you read the supplement reading provided. Reading assignments will be posted on a weekly basis.

Homework:

Homework is of two kinds:

- **Weekly participation:** Will consist of a combination of the following: Putting into Practice Assignments which are small coding assignments related to the subject matter taught or open-ended question discussions.
- **Programming Projects:** There will be 3 programming projects also posted on the system to be submitted electronically.

7. Examinations

There will be a midterm and final exam given. Exact date and time will be posted in "Canvas" on the course calendar and will be communicated electronically under the Week 0: General Course Information module.

8. Grading Breakdown

- Midterm: **30 %**
- Final: **30 %**
- Interaction homework and class participation: **5%**
- Quizzes: **15%**
- Programming projects: **20 %**

9. Grading Scale

- A 100 % to 90%
- B+ < 89 % to 85%
- B < 84 % to 80%
- C+ < 79 % to 75%
- C < 74 % to 70%
- D < 69 % to 59%
- F < 59 % to 0.0%

10. Timely submission of assignments/projects policy

Due to the nature of this course, late submission of Weekly Participation Assignments and Projects will not be accepted. A weekly assignment/project will **not be accepted** if it is **not submitted by the GIVEN DEADLINE (DATE and TIME).**

There will be **NO EXCEPTION** to this policy. Please manage your time appropriately.

11. Academic Integrity

The work you do and submit is expected to be the result of **your effort ONLY. You may discuss the high level (general) solution of a problem**. **However, cooperation should not result in one or more students having possession of a copy of all or part of a program written by another student or tutor. The penalty for violating the University's code may include failure in the course and probation.**

12. Computing Needs

You will be using your AFS account, your MySQL account (on NJIT server) and your own software on your NJIT notebook (or any other PC available to you).

13. Lecture Details

The course will cover 1 lecture per week (topics can be found in text described above) in the following order:

Schedule:

Week	Topics to be Covered
1	Fundamentals
2	Introduction to HTML/HTML5XHTML
3	Cascading Style Sheets
4	Basics of JavaScript
5	Dynamic Documents/Events with JavaScript
6	Dynamic Documents with JavaScript – Positioning
7	DataBase Connectivity and Introduction to MySQL and SQL
8	Introduction to PHP
9	Database Design, Advanced SQL and MySQL, Error Handling and Debugging
10	PHP and SQL and Cookies and Sessions
11	jQuery
12	Introduction to AJAX
13	Web Application Development and Security Methods
14	Networked Application Security and Standards and Interoperability