IT 353
Web Development Technologies
Fall 2021

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Office Hours: Zoom by appointment or immediately following class.
Class Time: M W 5 PM – 6:15 PM
Classroom: JK 030
Prerequisite: IT 261 and Java Programming Language

Course Overview:

The concepts of the Web and its development technologies are presented in this course. The course uses a breadth-first approach to covering the various technologies, which include HTML, JavaScript, Java, and Web Databases. Other technologies such as MVC, DAO, and Web Services are also discussed. Further, Web application security and exploit prevention techniques are studied. Students are expected to complete moderately complex assignments on each of the topics listed above and to perform independent studies on related topics not covered in class.

It is assumed that students at this level have sufficient proficiency in software development life cycle, programming, and maturity to be able to understand the underlying concepts behind traditional system software development. This course extends those concepts and applies them to the Web.

Course Objectives:

Upon successful completion of this class, the student should be able to:

- Explain the Web and its fundamental components
- Evaluate different web application design techniques
- Apply fundamental concepts for current web development technologies
- Develop web applications that incorporate a combination of the development technologies discussed in the course
- Thoroughly discuss a related topic which he/she has researched and presented in a term paper (only for graduate credit)

IDEA-Specific Course Objectives:

- #21 in IDEA: Gaining factual knowledge (terminology, classifications, methods, trends)
- #23 in IDEA: Learning to apply course material (to improve thinking, problem-solving, and decisions)

- #24 in IDEA: Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course

(!Recommended) Textbook:

Connolly & Hoar, Fundamentals of Web Development, 2nd Edition, ISBN-13: 9780134481722

There will also be additional readings from the Internet.

Additional Resources:

Software:

To access the VM from your computer you must install the VMware View client. Download the VMware View Client 5.x from the following link & follow the instructions to install/run the client.

http://www.itk.ilstu.edu/Tech/vmware/vdi.htm

For this class, we will use some proprietary software. You are expected to respect the software vendors' rights.

Evaluation:

Tentatively, students will be evaluated based on the following:

In-class practice (5 @ 8% each)	40%
Assignments (4 @ 10% each)	40%
Project: 1) Proposal Presentation (5%) 2) Final project presentation (5%) 3) Final project (10%)	20%
Total	100%

Course Requirements:

Students are required to engage in the following activities:

- Study online materials on Reggienet
- Reading assignments will be given, and students are expected to read them before coming to the class

- Complete various homework exercises (programming related or otherwise) that reinforce the topics discussed in class
- Complete a final project using the techniques discussed in class

Most homework will be given as practice problems. Each student is expected to complete individually to get the maximum learning. These problems will be collected and counted as a significant portion of your grade.

Class Participation: Each student is responsible for all materials covered in class. Each student is expected to be prepared for each class. Assigned readings and homework problems should be completed on time and you should be prepared to discuss or present your solutions/ideas to the class. Class attendance and active participation are expected and will be considered in determining your final grade. (To receive the full In-class Activities points, a student cannot have any unexcused absence and needs to actively participate in class.)

If you miss a class, **YOU** are responsible for being prepared for the next class (arrange to find out what was covered from another student). After having made an effort to learn the missed material, see the instructor with any questions or for help on points that are confusing.

Makeup: If you miss a test or class activity, contact the instructor as soon as possible to discuss the possibility of makeup. Makeup may be denied, allowed with a penalty, or allowed with no penalty depending on the reason. Expect to document the reason for missing a test or major class activity. Whenever possible, permission to alter a test date or an assignment due date should be arranged in advance. In unusual circumstances, see the instructor for possible exceptions to any of these policies.

Turning in Your Work: You need to turn in your assignments on time. Late assignments will be accepted; however, **late assignments will be assessed with a 10% penalty per day**. All assignments are to be submitted via ReggieNet unless specified otherwise by the instructor.

Accommodations: Any student needing to arrange a reasonable accommodation for a documented disability should contact Disability Concerns at 350 Fell Hall, (309) 438-5853, or visit the Website at disabilityconcerns.illinoisstate.edu.

University COVID requirements: ISU continues to provide University-wide COVIDrequirements based on the Center for Disease Control's updated guidelines and State of Illinois requirements. While these requirements may be modified throughout our semester, we (Students, Faculty, and Staff) are expected to follow them. Please know I will implement these expectations throughout our semester, to keep us as healthy as possible. As you will learn, an educator has many responsibilities beyond teaching their subject matter. A teacher's first responsibility is to protect their students. I view this as my primary responsibility this semester. If a student decides to not follow University COVID guidelines in my class, the student will be referred to the Dean of Student's Office. Please, let's work together to have the in-person/on-campus semester we have all been longing to have.

Statement Regarding Student Academic Conduct

The following is from the student handbook. Be sure you understand this policy. Ask if you have questions. The full text of the Student Code of Conduct can be found at: https://deanofstudents.illinoisstate.edu/conduct/code/

Protecting the rights of others based upon the nature of the educational process.

1) Students are expected to be honest in all academic work. A student's name on any academic exercise (theme, report, notebook, paper, examination) shall be regarded as assurance that the work is the result of the student's own thought and study. Offenses involving academic dishonesty include, but are not limited to, the following:
   a. Cheating on quizzes or examinations occurs when any student is found using or attempting to use any book, paper, or other article, or assistance from any individual intending to deceive the person in charge of the quiz or examination with reference to his or her work. No books, notes, papers, or related articles shall be used at any quiz or examination unless specifically authorized by the person in charge.
   b. Conversation or other communication between individuals in examinations and quizzes is forbidden except as authorized by the instructor.
   c. Computer dishonesty is the unacknowledged or unauthorized appropriation of another's program, or the results of that program, in whole or in part, for a computer related exercise or assignment.
2) Plagiarism is the unacknowledged appropriation of another's work, words, or ideas in any themes, outlines, papers, reports, or computer programs. Students must ascertain from the instructor in each course the appropriate means of documentation. Submitting the same paper for more than one course is considered a breach of academic integrity unless prior approval is given by the instructors.
3) Grade falsification is any attempt to falsify an assigned grade in an examination, quiz, report, program, grade book, or any other record or document.
4) Collusion occurs when students willfully give or receive unauthorized or unacknowledged assistance on any assignment. This may include the reproduction and/or dissemination of test materials. Both parties to the collusion are considered responsible.
   No individual may substitute for another in any quiz or examination.
5) Students shall not knowingly tear, mark, render imperfect, or otherwise damage or destroy or wrongfully appropriate library materials.
6) Students shall not alter any official University record.

Violations of the Code of Conduct, in any form, will not be tolerated. Any case of plagiarism will result in a zero for the assignment and possible further action including but not restricted to: notification of the graduate advisor and Director of IT, removal from the course, and/or taking action according to the ISU Academic Integrity Policy (available online at
https://deanofstudents.illinoisstate.edu/conflict/conduct/code/academic.php

Weekly Schedule

Subject to change

Week	Topics	Assignments
1-8/16, 8/18	Syllabus review HTML	
2-8/23, 8/25	HTML CSS	Assignment 1
3-8/30, 9/1	CSS	In-class practice 1
4-9/8	**9/6 (Labor Day no class)** JavaScript	In-class practice 2
5-9/13, 9/15	JavaScript	Assignment 2
6-9/20, 9/22	jQuery	In-class practice 3
7-9/27, 9/29	jQuery	
8-10/4, 10/6	Responsive Website Bootstrap	
9-10/11, 10/13	Project Proposal Presentations	Project proposal
10-10/18, 10/20	Get started with Spring Boot Thymeleaf	Assignment 3
11-10/25, 10/27	Thymeleaf Spring MVC	In-class practice 4
12-11/1, 11/3	SQL Database	In-class practice 5
13-11/8, 11/10	DAO Database	Assignment 4
14-11/15, 11/17	Session	
15-11/22, 11/24	**Thanksgiving break!**	
16-11/29, 12/1	Final Project Presentations	Final project presentation
Finals-12/5-10	Final project submission	Final project due

In-class practices will be given on Thursdays.