# CIS 2336 Internet Application Development

YEAR COURSE OFFERED: 2017

SEMESTER: FALL 2017

**DEPARTMENT:** College of Technology, ILT

**COURSE NUMBER:** CIS 2336

**NAME OF COURSE:** Internet Application Development

**NAME OF INSTRUCTOR:** Instructional Assistant Professor Natalia Fofanova

# **Internet Application Development**

#### Overview

This course is an introduction to Internet Application development. This introduction includes both client and server side technologies. Client side technologies include HTML for structure, CSS for presentation and Java Script for interactivity. Server-side technologies include PHP for middleware and MySQL for dynamic web applications. The course combines conceptual knowledge with hands-on experiences. Given our time constraints, it will not be possible to become an expert with each technology. Though, it will be possible for each student to demonstrate a 'Hands On' understanding of Internet Application Development. By design, this course provides a foundation for more in depth learning and prepares students to do well in future classes and projects.

Since Computer Information Systems, as a discipline, contains both technical and business attributes, the course is structured to provide students with the opportunity to reflect on the business context for web applications. Within this context, students are expected to understand that, while Internet technologies are interesting in themselves, in an organizational context, they can also make a significant contribution toward organizational goals.

### **Learning Objectives**

At the end of this course, you will be able to:

- 1. Compare, contrast, and demonstrate static and dynamic Web sites.
- 2. List and explain significant relevant standards organizations including the Internet Society and the W3C Consortium.
- 3. Using a simple text editor, create a web page, upload it to a web server, access it with a browser.
- 4. Create and apply a CSS style sheet.
- 5. Demonstrate and explain the purpose of client side scripting with JavaScript.
- 6. Name and explain the predominant client side scripting technology.
- 7. Design, develop and deploy a simple web site with static content and interactive elements utilizing HTML5, CSS, JavaScript and other technologies.

- 8. Apply JavaScript events to the Document Object Model (DOM) to create dynamic web pages.
- 9. Explain the purpose of server side programming technologies including PHP and MySQL.
- 10. Write simple SQL queries that retrieve data from multiple tables in an online relational data base.
- 11. Create an online MySQL Database.
- 12. Write, and publish, a web application that dynamically updates and queries an online MySQL database.

#### **Textbooks**

Ullman, PHP and MySQL for Dynamic Web Sites, Fourth Edition, Peachpit Press, Berkeley, CA, 2012, ISBN-13: 978-0-321-78407-0, ISBN-10: 0-321-78407-3 Text readings supplemented with selections from current Academic Journals, Safari Online, and other relevant sources.

Note: In class, instructor will provide each student with web site access codes.

### Grading

Final grades determined through a weighted average that is projected to include examinations, "Hands On" Activities, projects, and an online class Portfolio. Portfolio sections will include multiple sections including an "Assignments" section and an external links section, as well as related materials.

- Exams & Possible short Quizzes 30%
- Portfolio Project: website **30%.** Final grade for project would be given in the end of semester
- Homework (20%) will be given for each class. Due to big number of students in the class, I will not be able to grade your Homework on weekly basis. All Homework must be submitted anyway using Drop Box. Grader will pick up work for grading randomly. Not submitted work gives to you automatic zero. Submitting collaborated work will give to you automatic zero and report to department chair. Submitting "face" work will give to you automatic zero and your work will be graded weekly. At the beginning of each class I might give to you short quiz from homework. I will record this grade as Quiz grade. Attendance and class participation recorded at the beginning of class 20%. Final Project will be given as Homework and would be graded as Homework

Office: TECH 335

**Telephone:** 713-743-2852 (use only during my office hours)

Office hours: Monday 3:30-4:00PM

Tuesday 5:00 -5:30 PM

Wednesday 3:30 -4:00 PM in Office TECH 335

Or via Blackboard or UH e-mail

E-mail: nfofanova@uh.edu

**Teaching Hours:** 

CIS 2336 Internet Application Development, T2-100

M 4:00-7:00 PM; Tue 5:30-7:00 PM W 4:00-7:00 PM

# Projects, Assignments, and Activities

Class participation, that is, the active engagement in questions and answers, taking part in analyses and assignments is expected from all students. In each class, there may be participatory "Hands On" assignments. Only students present in that class can participate in the participatory assignments.

# **Hybrid Class Attendance**

Attendance is expected at all class meetings. As expected in a hybrid class, there will be regular (weekly) assignments. These assignments will include readings as well as active assignments. Often times, these assignments will be distributed in class. Any content covered in an assignment, such as a video, should be considered testable.

#### Exams

As specified in the class schedule, there will be only three exams. Since makeup exams are **not** an option, anyone that is not confident of being present for the exams should consider dropping. Note also that while makeup exams are not a possibility, for students, such as those unexpectedly called up for military duty, early exams can be arranged. Even though I am not in favor of multiple choice exam – some exams (whole or partially) would be given as multiple choice option.

# **Final Project**

Final Project is most important and time consuming activity for the semester. Its meant to be completed during entire semester, that why it would be graded on every week basis. Even your project in the end of semester will shine, you might get low grade for it, as I grade your work every Wednesday, during or before class

# **Class Interruptions**

During class, mobile phones and pagers should have their audible alarms turned off. Failure to observe this rule demonstrates a lack of respect for your classmates. Repeated failures will be asked to leave the class

## Counseling and Psychological Services (CAPS)

Counseling and Psychological Services (CAPS) can help students who are having difficulties managing stress, adjusting to college, or feeling sad and hopeless. You can reach CAPS (<a href="https://www.uh.edu/caps">www.uh.edu/caps</a>) by calling 713-743-5454 during and after business hours for routine appointments or if you or someone you know is in crisis. Also, there is no appointment necessary for the "Let's Talk" program, which is a drop-in consultation service at convenient locations and hours around campus. <a href="https://www.uh.edu/caps/outreach/lets\_talk.html">http://www.uh.edu/caps/outreach/lets\_talk.html</a>.

	In the classroom Submission at the beginning each class	What to read
Week #1	CodeCademy.com: Introduction to HTML, Build your own Webpage, HTML Basics II, HTML Structure: Using Lists, HTML Structure: Tables, Divs, and Spans CodeCademy.com: Fofanova Lecture 1	CodeCademy.com: HTML and PHP
Week #2	Self-study week. CodeCademy.com: Introduction to CSS, CSS selectors, Classes and id's, CSS Element Positioning Setting up Development server Cpanel Overview, Web Site Structure Introduction to On-line Learning Portfolio I am using this week to create 135 accounts on Hostgator Fofanova Lecture 2	Completing of profile HTML and CSS from CodeCademy.com Be ready to submit next week 100% during class
Week #3	Liquid CSS Design: 1, 2 and 3 columns Online Website Creation (HostGator) and transferring to HostGator	Demonstrate completing 100% HTML and CSS from CodeCademy.com
Week #4	Exam 1: HTML and CSS  Start completing CodeCademy: PHP	Read Chapter 1- 2 of the textbook
Week #5	Introduction to PHP language Programming with PHP: Validating, Conditions, Arrays, loops	Demonstrate Units 1-6 of PHP on CodeCademy.com
Week #6	Creating Dynamic websites with PHP	Read Chapter 3 before class Demonstrate Units 7-9 of PHP on CodeCademy.com

Week #7	Introduction to MySQL and SQL Database Design	Read Chapter 4-6 before class Demonstrate Units 1-4 of Learn MySQL on CodeCademy.com
Week #8	Using PHP with My SQL Practice with MySQL: Filling database from Web Form	Read Chapter 9- 10 of the textbook before class Video (will publish link later)
Week #9	Exam 2: PHP and SQL	Read Chapter 11 of the textbook before class Demonstrate Units 1-4 of JavaScript
Week#10	Web Application Development with adding JavaScript to PHP	Chapter 12 of the textbook before class Demonstrate Units 5-6 of JavaScript
Week#11	Form handling in HostGator Advanced PHP Techniques in Web Applications	Chapter 13 of the textbook before class Demonstrate Units 7-8 of JavaScript
Week#12	Exploring JavaScript; Expressions and Control flow JavaScript functions, Objects, Arrays	
Week #13	Final Project: Learning Portfolio website	
Week #14	Thanksgiving holiday November 22-25	
Week # 15 Apr 23-29	Final Project: Learning Portfolio website	
Week # 16 April 30- May 1	Final Project: Learning Portfolio website	