Molloy College

COURSE OUTLINE

DEPARTMENT:	PROFESSOR:	SEMESTER:
Mathematics and Computer Studies	Dr. Jason Schanker	Fall 2017
TITLE: Introduction to Web Design and Development	COURSE #: CIS 112	SECTION: 01

DESCRIPTION:

Students will learn to create and design web pages using markup and style sheet languages such as HTML and CSS. Topics include selectors, inheritance, the box model, tables, page flow, forms, page validation, media, methods for creating multicolumn layouts along with the tradeoffs between them and the fundamentals of responsive web design. Students will also be introduced to various online tools that assist in web page creation and publishing. Throughout the course, there will be an emphasis on the separation of structure and presentation and code readability and maintainability. At the conclusion, students will create their own websites that adhere to the principles and guidelines taught throughout the course. 3 credits

MOLLOY COLLEGE
COURSE OUTLINE

Introduction to Web Design and Development - CIS 112
Fall 2017 Semester
Professor: Jason Schanker
Office: 218 Casey (next to the C217 computer lab, C219 is the math/cs office)
Telephone: 516-323-3430 (E-mail checked more frequently)
E-mail Address: jschanker@molloy.edu
Office Hours: Monday - Thursday 6:30-7 p.m. and by appointment

Prerequisites:
None

Course Goal:
To provide students with the fundamental knowledge and hands-on experience necessary for designing and developing industrial-strength web pages.

Student Learning Objectives:
By the end of this course, students will be able to:

- Create industrial-strength web pages using HTML and CSS from scratch.
- Develop a well-designed modern responsive personal web site.
- Formulate different design strategies and analyze the tradeoffs between them.
- Publish their work on the World Wide Web and explain the basics of the Internet.
- Create a web/mobile application using React.js/Meteor.js given boilerplate code.
- Be able to extend their knowledge of web development and design through Internet research.

Assessment Measures (see Criteria for Grading for percentages):

1. Quizzes
2. Web Site Project and Final Oral Presentation
3. Assignments/Class Participation/Attendance

Criteria for Grading:

1. Quizzes: **30%**
   There will be a total of 12 quizzes throughout the semester (See: Tentative Class Schedule for Planned Quiz Dates) assessing your understanding of the content covered in lecture and on the homework quizzes and your ability to apply what was taught to create web page components according to sound design principles. Make-up quizzes will be given at my discretion.

2. Web Site Project and Final Oral Presentation, part of Communicating Across the Curriculum: **60%**
   You will be developing your own web site that adheres to the principles and guidelines taught throughout the course. The web site will also need to meet a set of minimum requirements to demonstrate your ability to apply the content covered in the course. These specifications will be announced during class lectures. At the course's conclusion, you will deliver an oral presentation in which you will describe the development process and justify your design decisions, mentioning possible alternatives that were considered. The grade for the project will be determined by the extent to which you met the minimum requirements, the soundness of the design

(both of the code and the style), and the content. The presentation will be evaluated on the basis of its clarity and effectiveness, its demonstration of your understanding of the content, and the extent to which it covers the development process, including an adequate explanation of the alternatives that were considered with a justification of why they were discounted.
This component of your grade will also include the timeliness for which you meet the due dates for developing parts of your web site for your final project. **Building a good web site IS VERY TIME CONSUMING. As such, it is extremely important that you work on your web site throughout the semester.** Please sign up for a GitHub account and create a new repository for your web site. Doing so will allow you to upload files and save its version history. It will allow me to make comments on individual lines of HTML/CSS/JavaScript. You will also be able to easily host your web site on GitHub pages for the world to access.

3. Assignments/Class Participation/Attendance: **10%**
Assignments consist of reading, completing in-class exercises, and regular homework quiz assessments on Canvas. You may take the homework quizzes as often as you want and only the highest of the grades will be counted. Generally, homework quizzes will be due at the beginning of the class before the in-class quiz on that chapter is given so that you have a chance to ask questions. Because solutions to the homework quiz may be given on its due date, you should expect late homework quizzes to receive no credit. If a late homework quiz is accepted, the penalty will most likely be 2%/day late + total point value of questions that we go over in class.

Outline of Topics - Tentative Class Schedule

Session	Dates	Topic	Chapter/HW
Week 1 (1)	**closed**, 9/6	**9/4: Labor Day** Introduction to HTML	Chapter 1 HW Quiz # 1 due 9/11 Web Site: Basic Content and Structure, Host on GitHub Pages
Week 2 (2, 3)	9/11, **9/13**	Links to Files **9/13: Quiz on Chapter 1**, Introduction to the Web Page Creation Process, React.js Components	Chapters 2 and 3 HW Quiz # 2 due 9/18 HW Quiz # 3 due 9/20 Web Site: Navigation Links
Week 3 (4, 5)	9/18, **9/20**	Getting connected to the World Wide Web **9/20: Quiz on Chapter 2, Introduction to Images**	Chapters 4 and 5 HW Quiz # 4 due 9/25 HW Quiz # 5 due 9/27 Web Site: Images in appropriate formats, Directory structure, Links to sections, external sites
Week 4 (6, 7)	**9/25**, **9/27**	**9/25: Quiz on Chapter 3**, Introduction to Industry Standard HTML **9/27: Quiz on Chapter 4**, Introduction to Cascading Style Sheets (CSS)	Chapters 6 - 7 HW Quiz # 6 due 10/2 Web Site: Syntactically correct HTML, Meta tags (for SEO: see https://support.google.com/webmasters/answer/79812?hl=en), Basic CSS

Week 5 (8, 9)	**10/2**, **10/4**	**10/2: Quiz on Chapter 5**, Introduction to CSS (cont.) **10/4: Quiz On Chapter 6**, Styling Text with CSS	Chapters 7 - 8 HW Quiz # 7 due 10/11 Web Site: Use of classes, text styling, and multiple external stylesheets
Week 6 (10)	**closed**, 10/11	**10/9: Columbus Day** Box Model, Styling Elements, and Media Queries	Chapter 9 HW Quiz # 8 due 10/16 Web Site: Responsive Media queries
Week 7 (11, 12)	**10/16**, **10/18**	**10/16: Quiz on Chapter 7**, Box Model, Styling Elements, and Media Queries (cont.) **10/18: Quiz on Chapter 8**, Divs, Spans, Descendant Selectors, Pseudo-Classes, and the Cascade	Chapters 9 - 10 HW Quiz # 9 due 10/18 HW Quiz # 10 due 10/23 Web Site: Use of IDs, divs, spans, descendant selectors, and pseudo-classes, CSS transitions
Week 8 (13, 14)	**10/23**, **10/25**	**10/23: Quiz on Chapter 9**, Divs, Spans, Descendant Selectors, Pseudo-Classes, and the Cascade (cont.) **10/25: Quiz on Chapter 10**, Flow, Arranging Elements, Common Layout Techniques	Chapters 10 - 11 Web site: Multicolumn layout for larger screens, single column for smaller screens
Week 9 (15, 16)	10/30, 11/1	Flow, Arranging Elements, Common Layout Techniques (cont.)	Chapter 11 Web site: Start researching advanced CSS Layouts/Effects: CSS Transitions, Lightbox, Dropdown navigation menu, links that gradually highlight, thumbnail images that expand when mousing over, parallax scrolling, fade ins and fade outs, and other special effects using a combination of positioning techniques
Week 10 (17, 18)	11/6, 11/8	Flow, Arranging Elements, Common Layout Techniques (cont.) Introduction to HTML5 CSS Transitions, Dropdown navigation menu, CSS Lightbox	Notes, Chapters 11-12 Web Site: Continue working on advanced CSS Layouts/Effects
Week 11 (19, 20)	11/13, **11/15**	Introduction to HTML5 CSS Transitions, Dropdown navigation menu, CSS Lightbox (cont.) **11/15: Quiz on Chapter 11**, Introduction to Responsive Web Design	Notes, Chapter 12 Web site: Use of HTML5 tags

Week 12 (21)	11/20, closed	Introduction to Responsive Web Design (cont.) **11/22: Thanksgiving Recess**	Notes Web Site: Responsive Web Design Techniques: max-width for images, relative font sizes, fluid column layouts, etc., convert web site into mobile app
Week 13 (22, 23)	11/27, **11/29**	Introduction to React.js Components and Meteor.js, creating a mobile web application **11/29: Quiz on Chapter 12, Responsive Web Design**	Continue developing web site/app with responsive web design techniques, special effects, etc.
Week 14 (24, 25)	12/4, 12/6	HTML Tables, Form Elements, Effects with JavaScript/CSS	Chapters 13-14, Notes Web Site possibilities: Add HTML tables as appropriate, include comment section, mobile navigation button
Week 15 (26)	12/11	Finishing Touches on Final Projects	https://www.meteor.com/tutorials/react/running-on-mobile Complete web sites, prepare final presentation
Week 16 (FINAL CLASS)	**12/13 or 12/18**	**Web Site/Application Final Presentations**	

Required Textbook:
Head First HTML and CSS, 2nd edition by Robson and Freeman, 2012, ISBN-13: 9780596159900.

The data files will be available on Canvas. They are also available for free on the web site (but some are completed). Here is the link:

http://wickedlysmart.com/hfhtmlcss

The book is good for understanding the fundamentals and will be followed closely for lab exercises so it's a good idea to buy it. Relative to textbooks, its price is quite low. Since it is a bit dated when it comes to design and doesn't cover CSS3, we will be supplementing the material.

Attendance Policy:
It is important that you attend all classes and complete all in-class exercises and homework assignments on time. You are responsible for all material covered in class and on the homework. If you have to miss a class, it is your responsibility to get the material for that class and make up any missed work. Class participation, attendance/lateness, lab and homework assignments, together account for 10% of your grade (see above Grading Criteria 3). Also, as mentioned above, if you miss part or all of a class, you quiz average may be adversely affected (see above Grading Criteria 1). Please see the Student Handbook for College Policy regarding Excused Absences.
You are responsible for taking quizzes at the specified time. If you have a documented reason for missing a quiz, contact me prior to the assessment. Make-up quizzes will be given at my discretion.
Be sure to monitor your Molloy email on a regular basis; most communications outside of class will be by email.

It is the accepted practice at Molloy College that faculty take attendance in all courses.
- Students should notify faculty if an absence if necessary as the result of a serious situation.
- Failure to attend class for two (2) consecutive weeks at any point in the semester, without notification of extenuating circumstances, will result in an administrative withdrawal from the course.
- Administrative withdrawal results in removal from the course with a grade of "WA" or "WF" determined by the point in the term and the academic performance.
- Students should consult the College catalog for complete details regarding withdrawals and the potential financial implications of a withdrawal.

Statement on Academic Integrity:
All students are bound by the Molloy College Academic Integrity Policy included in the Student Handbook. Please read it and abide by it. In a class with a forced curve (this is **NOT** such a course) in which there is a fixed percentage of As, Bs, and Cs, a person who commits an act of academic dishonesty and receives a higher grade causes another student to receive a lower grade. If a person gets an A in a class through academic dishonesty and lacks the skills an employer would expect after receiving such a grade in that course, he/she will be unable to get the job. In addition, the employer may not interview other candidates legitimately receiving an A in that class because they may question if the grade represents mastery of the material. Even committing academic dishonesty to "pass" a class can devalue the degree as a certain level of competency would still be expected. This is **NOT** hypothetical; there are instances where employers have mistrusted the value of a degree because of their negative experiences with graduates from the school from which it was earned. **In short, academic dishonesty hurts your fellow students and is therefore unacceptable in every instance.**

Statement on Communicating Across the Curriculum:
Quizzes may have questions in which students are asked to justify design decisions in writing. Students will also develop web sites for their final projects, which involves expression through writing. The grading of them will take into account the content and the correctness of grammar. They will also deliver an oral presentation as part of their final projects which will partially be evaluated on clarity and effectiveness.

Statement on Disabilities:
Students with documented disabilities who believe they may need accommodations in this class are encouraged to contact the Director of the Disabilities Support Service Office, Casey Building, Room 11. The telephone number is 516-323-3315.