**Course Overview**

**Course:** Comp 1950

**Length:** 12 x 3 hr classes (36 hours total)

**Course Description:**

This hands-on course follows on from COMP 1850 Applied Web Development Level 1. Students who already understand HTML and CSS will explore web development in more depth with new topics and techniques. Participants will gain a deeper understanding of the latest technologies including HTML5 and CSS3 for developing web sites and applications. There is a focus on responsive design and mobile presentation through the use of Media Queries. Adding behavior to web sites using JavaScript frameworks such as jQuery is introduced. Labs and exercises focus on industry standard web development methodology. Students gain experience creating templates for content management systems and presentation. Additional topics will include: source control for managing your code, and web-based fonts for professional typography.

By the end of this course successful students will be able to build dynamic and semantically marked-up content that is viewable on mobile and desktop screen sizes.

**Course Goals:**

* To gain a deeper understanding of HTML, CSS and advanced topics in web development.
* To focus on best practices in web page and web site design.

**Course Learning Outcomes / Competencies:**

Upon successful completion of this course, the student will be able to:

* To gain a deeper understanding of HTML, CSS and advanced topics in web development.
* To focus on best practices in web page and web site design.
* Add behaviour to any web page using JavaScript.
* Create dynamic content using JavaScript frameworks like jQuery.
* Employ Web Standards when building web sites for maximum compatibility.
* Understand basic development methodology.
* Use media queries to create responsive designs for mobile and desktop presentation
* Use HTML5 technologies to present rich content such as video and audio.
* Create professional looking typography using web-based fonts.
* Understand source control using GIT.

**Evaluation Criteria**

Assignments 1 – 7 20% (2.86% per assignment)

Project 1 20%

Mid-Term Exam 10%

Final Exam 20%

Final Project 30%

**Total** **100%**

**Course Schedule**

**Day 01**

* Course Introduction
* Setup development environment
* FTP Setup
* HTML and CSS Review
* HTML5 Video and Audio
* Assignment 1

**Day 02**

* CSS @font-face
* Responsive web design
* Assignment 2

**Day 03**

* Flexbox
* Assignment 3

**Day 04**

* CSS3 styling
* CSS3 selectors
* CSS transitions and animations
* Assignment 4

**Day 05**

* Responsive Images
* Mobile navigation systems
* Assignment 5
* Mid-term project

**Day 06**

* Mid Term Exam
* Lab time

**Day 07**

* CSS Grid
* Assignment 6

**Day 08**

* SASS
* Assignment 7

**Day 09**

* Git and GitHub
* Final Group Project

**Day 10**

* Servers
* htaccess
* PHP review
* JavaScript review

**Day 11**

* Lab time

**Day 12**

* Final Exam
* Lab time