

## **NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY ITD 210 – WEB PAGE DESIGN II (3 CR.)**

### **Course Description**

Incorporates advanced techniques in web site planning, design, usability, accessibility, advanced site management, and maintenance utilizing web editor software(s). Lecture 3 hours per week.

### **General Course Purpose**

This course builds on the web design skills learned in ITD110. It concentrates on creating professional quality webs sites. The course covers planning, design, coding and testing web sites with a focus on creating a robust and appropriate user interface. Students will move beyond the basics and work with dynamic web sites, writing scripts and understanding the importance of database integration.

### **Course Prerequisites/Corequisites**

Prerequisite: ITD 110

### **Course Objectives**

Upon completing the course, the student will be able to:

- a) Add to knowledge of the basic web design concepts, features, and HTML and CSS conventions offered in Web Design I
- b) Use a versatile and visual editor
- c) Create Web sites with existing and emerging client-side technologies such as HTML, CSS, JavaScript, jQuery and DOM
- d) Use advanced techniques for producing professional quality static and dynamic web sites
- e) Publish sites to a web server using the latest File Transfer Protocol (FTP) technologies
- f) Employ current technology to create web sites using site administration tools, templates, scripting graphics and multimedia
- g) Identify and describe current technologies for database integration

### **Major Topics to be Included**

#### Student Learning Outcomes

- a) Web design concepts, features, HTML5 and CSS conventions
- b) Understand the purpose of Web design
- c) Understand the Web design process
- d) Define the target audience
- e) Understand site organization
- f) Develop effective site navigation
- g) Understand proper page design
- h) Analyze compliance with Section 508 accessibility standards
- i) Validate HTML and CSS against W3C standards
- j) Knowledge of AJAX
- k) Understand ethical use of information on the Web, such as copyright requirements
- l) Apply technologies of responsive design

#### Web Site Management

- a) Understand the use of search engine optimization (SEO) techniques
- b) Apply search engine optimization techniques, such as meta tags
- c) Recognize the types and importance of site analytics

- d) Illustrate the proper use of file management techniques to organize projects, files and folders on the web server and local drives
- e) Distinguish the typical site statistics and how they are used to manage a web site

#### Site Architecture

- a) Understand the options for site organization (hierarchical, linear, etc)
- b) Develop a diagram of the web project (site map / storyboard)

#### JavaScript

- a) Utilize JavaScript including Control Structures, Functions, Objects and DOM
- b) Use JavaScript libraries

#### Database integration technologies

- a) Describe current server-side frameworks
- b) Identify the database technologies used for backend processing

#### Produce Web sites

- a) Develop static web pages
- b) Develop dynamic web pages
- c) Develop professional quality web sites
- d) Use new features of HTML5 and CSS

#### Publishing

- a) Evaluate types of Web host providers
- b) Understand and use File Transfer Protocol (FTP)
- c) Utilize Meta tags
- d) Manage files and folders on a web server

#### Templates / Libraries

- a) Understand the use of templates in web design
- b) Choose appropriate template designs
- c) Incorporate CSS in template designs

#### Optional topics

- a) jQuery
- b) JSON
- c) RSS
- d) Database Integration
- e) XML
- f) Multimedia software authoring tools
- g) Graphics editing software
- h) Manipulation of CSS

### **Required Time Allocation per Topic**

In order to standardize the core topics of ITD 210 so that a course taught at one campus is equivalent to the same course taught at another campus, the following student contact hours per topic are required. The topics do not need to be followed sequentially. Many topics are taught best as an integrated whole, often revisiting the topic several times, each time at a higher level. There are normally 45 student-contact-hours per semester for a three credit course. (This includes 15 weeks of instruction and does not include the final exam week so  $15 * 3 = 45$  hours. Sections of the course that are given in alternative formats from the standard 16 week section still meet for the same number of contact hours.) The final exam time is not included in the time table. The last category, Other Optional Content, leaves time for an instructor to tailor the course to special needs or resources.

Topic	Hours	Percentage
Web design concepts, features, HTML5 and CSS conventions	12	26.7%
Web Site Management	3	6.67%
Site Architecture	2	4.4%
JavaScript	9	20%
Database integration technologies	3	7%
Produce Web sites	7	13.4%
Publishing	2	4.4%
Templates / Libraries	1	2.2%
Optional topics	6	15.6%
<b>TOTAL HOURS</b>	<b>45</b>	<b>100%</b>