Web Design II (IMED 2315)

Credit: 3 semester credit hours (2 hours lecture, 4 hours lab)

Prerequisite/Co-requisite: None.

Course Description

A study of mark-up language advanced layout techniques for creating web pages. Emphasis on identifying the target audience and producing web sites according to accessibility standards, cultural appearance, and legal issues.

Required Textbook and Materials

1. Javascript: The Web Warriors Series, 6th Edition
    a. ISBN number is 13**:** 9781305078444.
2. Access to Web Server
3. Internet Access

Course Objectives (with applicable SCANS skills after each)

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

1. Demonstrate the use of World Wide Web Consortium (W3C) standards for style, accessibility, layout, and formatting

2. Build web pages with dynamic customization capabilities

3. Develop web sites designed for usability and cultural diversity

4. Utilize design strategies to increase the success of locating the site via search engines.

SCANS Skills and Competencies

Beginning in the late 1980's, the U.S. Department of Labor **S**ecretary's **C**ommission on **A**chieving **N**ecessary **S**kills (SCANS) conducted extensive research and interviews with business owners, union leaders, supervisors, and laborers in a wide variety of work settings to determine what knowledge workers needed in order to perform well on a job. In 1991 the Commission announced its findings in *What Work Requires in Schools.* In its research, the Commission determined that "workplace know-how" consists of two elements: foundation skills and workplace competencies. The three-part foundation skills and five-part workplace competences are further defined in the SCANS attachment.

Course Outline

A. Introduction to JavaScript
   1. Intro to the World Wide Web
   2. Intro to Web Development
   3. Writing Basic JavaScript Code
B. Functions, Data Types, and Operators
   1. Working with Functions
   2. Data Types
   3. Operators
C. Arrays and Controlling Flow
   1. Storing Data in an Array
   2. Repeating Code
   3. Decisions
D. Document Object Model (DOM) and DHTML
   1. Debugging
   2. Tracing Errors
   3. Exception Handling
E. Enhancing and Validating Forms
   1. JavaScript with Forms
   2. Browser Validation
   3. Custom Validation
F. Using Object-Oriented JavaScript
   1. OOP
   2. Classes
   3. Custom Objects
G. Manipulating Data in Strings and Arrays
   1. Formatting Strings
   2. Regular Expressions
   3. Array manipulation
H. Managing State Information and Security
   1. Understanding States
   2. Storing State Information
   3. Security Issues
I. Programming for Touchscreens and Mobile Devices
   1. Touch Events
   2. APIs for Mobile Devices
   3. Web Apps
J. Updating Web Pages with Ajax
   1. Working with Ajax
   2. HTTP
   3. Server Data
K. Introduction to jQuery
   1. Implementing jQuery
   2. jQuery Effects

Grade Scale

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

Course Evaluation

Final grades will be calculated according to the following criteria:

1. Homework	30%
2. Quizzes, Projects, and Test	35%
3. Final Project/Certification	35%

Course Requirements

1. Use structured programming techniques

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2. Develop dynamic content web sites
3. Create appropriate documentation
4. Create applicable graphical user interfaces.

Course Policies

1. No food, drinks, or use of tobacco products in class.

2. Cellphones, MP3 players, Tablet, Laptops, Notebooks and any other electronic devices must be turned off while in class.

3. Do not bring children to class.

4. No late assignments will be accepted.

5. Tests: Students that miss a test are not allowed to make up the test. Students that miss a test will receive a grade of '0'.

6. Attendance: Students are expected to attend class

7. If you wish to drop a course, the student is responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an 'F' in the course.

8. Additional class policies as defined by the individual course instructor.

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

Course Schedule

Week 1	Introduction to JavaScript	Chapter 1
Week 2	Functions, Data Types, and Operators	Chapter 2
Week 3	Building Arrays and Controlling Flow	Chapter 3
Week 4	Debugging and Error Handling Project 1	Chapter 4 Chapter(s) 1 – 4
Week 5	Working with the Document Object Model (DOM) and DHTML	Chapter 5

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Course Syllabi

Week 6	Enhancing and Validating Forms	Chapter 6
Week 7	Using Object-Oriented JavaScript	Chapter 7
Week 8	Manipulating Data in Strings and Arrays Project 2	Chapter 8 Chapter(s) 1 - 8
Week 9	Managing State Information and Security	Chapter 9
Week 10	Programming for Touchscreens and Mobile Devices Project 3	Chapter 10 Chapter(s) 1 - 10
Week 11	Updating Web Pages with Ajax	Chapter 11
Week 12	Introduction to jQuery Project 4	Chapter 12 Chapter(s) 1 - 12
Week 13	Special Topic	Drupal or Advanced jQuery
Week 14	Special Topic	Drupal or Advanced jQuery
Week 15	Final Project Certification	Chapter(s) 1 - 12
Week 16	Final Project Certification	Chapter(s)

Contact Information:

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