**College of San Mateo**
**Official Course Outline**

1. **COURSE ID:** DGME 167 **TITLE:** Web and Mobile Design I
   **Units:** 3.0 units **Hours/Semester:** 40.0-45.0 Lecture hours; 24.0-27.0 Lab hours; and 80.0-90.0 Homework hours
   **Method of Grading:** Grade Option (Letter Grade or Pass/No Pass)
   **Recommended Preparation:**
   Eligibility for ENGL 838 or ENGL 848 or ESL 400.
   DGME 110, and DGME 111 or equivalent

2. **COURSE DESIGNATION:**
   **Degree Credit**
   **Transfer credit:** CSU

3. **COURSE DESCRIPTIONS:**
   **Catalog Description:**
   This course teaches the fundamentals of website/mobile front-end development through a mixture of hands on exercises, lecture, and demonstration. Topics include site principles, introduction to HTML, color and image preparation for the web and mobile, mobile and desktop browser compatibility, graphic user interface design, usability, internet ethics and copyright issues. Students build a basic website following accepted design layout standards. Some familiarity with Adobe Photoshop is presumed. Software: Adobe Creative Cloud®

4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**
   Upon successful completion of this course, a student will meet the following outcomes:
   1. Design and develop a basic website/mobile site.
   2. Compare and contrast well-designed web/mobile interfaces from an aesthetic point of view and apply these concepts to their own projects.
   3. Manipulate and manage site files in a local root directory and remote web server directory.
   4. Describe the use and functionality of HTML and CSS.

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**
   Upon successful completion of this course, a student will be able to:
   1. Create and assemble a basic web/mobile site with images and links to other pages.
   2. Upload this site to a commercial server and be able to edit files.
   3. Analyze the importance of HTML and site layout, as well as information architecture and usability.
   4. Manage search engine and WEB directory registration procedures.
   5. Debate Internet copyright, privacy, and etiquette issues.
   6. Demonstrate effective workflow, file management and integration with other software programs

6. **COURSE CONTENT:**
   **Lecture Content:**
   1. Use of software to develop a website or mobile interface.
   2. Introduction to the WEB
      A. Internet, www, ftp (file transfer protocol), email
      B. Modems
      C. Internet Service Providers
      D. Browsers
      E. URLs: entering an address, domain name
      F. Searching, directories, search engines
   3. Web/Mobile design differences
      A. Screen size
      B. Scalable images
      C. IOS vs Android
   4. Web/Mobile page creation
      A. Text formatting
      B. Changing colors
      C. File naming

D. Saving and titling pages
E. Source files
F. Uploading and updating sites
G. Testing sites
H. Registering sites

5. Principles of layout and design as they relate to the WEB
   A. Color theory for the WEB
   B. Color: aesthetics, CYMK and RGB, browser-safe colors, monitor resolution
   C. Resolution
   D. File size
   E. Sound and animation
   F. Cost of publishing
   G. Interface and navigation
   H. Navigation design, styles, frames, repetition, continuity, linking
   I. Typography on the WEB: Readability vs. legibility, default fonts and sizes, proportional vs. monospaced type, Logical vs. Physical styles
   J. Grid Layout
   K. Cascading style sheets
6. Page layout software vs HTML
   A. Limitations
   B. Source files
   C. Saving documents
7. File type, format, compatibility, size, and resolution
   A. Terminology
   B. GIF, JPEG, PNG, SVG, PDF, SWF
   C. Anti-aliasing
   D. Image maps
   E. Thumbnails
   F. Scanning
   G. Background images
   H. Animated GIFs
8. Accessibility
   A. Section 508 - ADA requirements
   B. Alt tags
   C. Design issues
9. Creating a site map
   A. Site management
10. Copyright, privacy, and netiquette issues
11. Creating and adapting sites for mobile access
12. Integration and workflow with other software

**Lab Content:**

Students use lab time to complete projects and textbook assignments under the guidance of the instructor. Students will complete lab exercises and assignments that reinforce the lecture material along with strengthening their skills utilizing the appropriate software.

7. **REPRESENTATIVE METHODS OF INSTRUCTION:**

Typical methods of instruction may include:

A. Lecture
B. Lab
C. Critique
D. Discussion
E. Guest Speakers
F. Observation and Demonstration
G. Other (Specify): A. Lecture/Discussion -Encompassing in-class demonstrations & explanations on course topics B. Labs -Students will demonstrate examples of course topics on lab computers C. Reading assignments -Students will be given reading assignments to become familiar with the material presented in a corresponding lecture, lab, or quiz. D. Project assignments -Students will be given a project assignment to demonstrate their knowledge of the software and theory.

8. **REPRESENTATIVE ASSIGNMENTS**

Representative assignments in this course may include, but are not limited to the following:

**Writing Assignments:**

Written short answer and short paragraphs incorporated in the assignments and projects.

**Reading Assignments:**

Weekly reading from course textbook and resources.

**Other Outside Assignments:**

Completion homework assignments.

9. **REPRESENTATIVE METHODS OF EVALUATION**

Representative methods of evaluation may include:

A. Class Participation
B. Class Work
C. Exams/Tests
D. Group Projects
E. Homework
F. Lab Activities
G. Oral Presentation
H. Papers
I. Portfolios
J. Projects
K. Quizzes
L. Projects -Students will be assigned projects to execute to specifications. -Students will be graded on performance of these projects. Quizzes/Midterm/ Final Exam -Students will be tested on their retention of important principles. Class Demonstrations -Students will make presentations and demonstrate course topics.

10. **REPRESENTATIVE TEXT(S):**

Possible textbooks include:

A. Schmitt, Christopher. *Designing Web and Mobile Graphics: Fundamental concepts for web and interactive projects* , 2nd ed. Voices Matter, 2014
B. Myers, Mark. *A Smarter Way to Learn HTML and CSS*, 1st ed. Create Space, 2015

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**Course Originator:** Diana Bennett