

SAN DIEGO COMMUNITY COLLEGE DISTRICT  
CONTINUING EDUCATION  
COURSE OUTLINE

**SECTION I**

**SUBJECT AREA AND COURSE NUMBER**

COMM 641

**COURSE TITLE**

WEB PROGRAMMING BEGINNING

**TYPE COURSE**

NON-FEE

VOCATIONAL

**CATALOG COURSE DESCRIPTION**

This course includes an overview of the internet, components of a website and introduces web programming using HTML. Topics include, current web technologies, website development tools, basic web programming skills and hand coding of a website. Students will learn to publish projects and sites to the web and utilize cascading style sheets for web page layout and formatting. Current industry standards, processes and techniques are also taught. (FT)

**LECTURE/LABORATORY HOURS**

160

**ADVISORIES**

Completion of Interactive Multi-Media Program or equivalent.

**RECOMMENDED SKILL LEVEL**

Possess a 10th grade reading level; ability to communicate effectively in the English language.

**INSTITUTIONAL STUDENT LEARNING OUTCOMES**

1. Social Responsibility  
SDCE students demonstrate interpersonal skills by leaning and working cooperatively in a diverse environment.
2. Effective Communication  
SDCE students demonstrate effective communication skills.
3. Critical Thinking  
SDCE students critically process information, make decisions, and solve problems independently or cooperatively.

INSTITUTIONAL STUDENT LEARNING OUTCOMES (CONTINUED)

4. Personal and Professional Development

SDCE students pursue short term and life-long learning goals, mastering necessary skills and using resource management and self-advocacy skills to cope with changing situations in their lives.

COURSE GOALS

1. Introduce basic web programming using HTML.
2. Basic understanding of the internet and the worldwide web.
3. Identify the terminology associated with the internet.
4. Learn components of building a website including file structure specific to web design.
5. Learn how to publish projects and sites to the web.
6. Utilize cascading style sheets (CSS) for web page layout and formatting.
7. Learn to hand-code web pages.
8. Understand current industry standards, processes and techniques.

COURSE OBJECTIVES

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

1. Understand basic web programming and demonstrate using HTML.
2. Demonstrate a basic understanding of the internet and the worldwide web.
3. Demonstrate the terminology associated with the internet.
4. Demonstrate and explain the building of a website.
5. Explain the components of a website.
6. Demonstrate publishing projects and sites to the web.
7. Demonstrate using cascading style sheets.
8. Demonstrate building web pages using hand coding.
9. Explain current industry standards, processes and techniques.

**SECTION II**

COURSE CONTENT AND SCOPE

1. Overview of How The Internet Works
  - 1.1. Brief history of Internet
    - 1.1.1. Types of Internet information available
    - 1.1.2. Internet common terms
    - 1.1.3. Internet terminology
2. Components of a Website
  - 2.1. Necessary files
  - 2.2. Naming conventions
3. Web Based File Structure
  - 3.1. Directory hierarchy
  - 3.2. Traversing the DOM

COURSE CONTENT AND SCOPE (CONTINUED)

4. Utilizing WHOIS
5. Obtaining a Domain Name
  - 5.1. Working with a registrar
6. Obtaining Web Based Hosting
  - 6.1. How servers and hosts function
7. Publishing a Website to The Internet
  - 7.1. Methods of accessing FTP
  - 7.2. Applications that assist with FTP
  - 7.3. File transfer
  - 7.4. Managing web related files through an FTP application
8. Web Architecture, HTML, and Related Technologies
  - 8.1. Introduction
  - 8.2. The W3C
  - 8.3. Basic structure of a web page
  - 8.4. HTML syntax
  - 8.5. Browsers to download
  - 8.6. Creating a project/file naming/folder structure
  - 8.7. Using a code based editor to author web pages
  - 8.8. Creating your first web page
  - 8.9. Validating your first web page
9. Tags
  - 9.1. The anatomy of a tag
  - 9.2. Block level elements
  - 9.3. Inline level elements
10. Attributes
  - 10.1. Global attributes
11. Understanding Lists, Links, and Images
  - 11.1. Working with list elements
  - 11.2. The unordered list
  - 11.3. The ordered list
  - 11.4. The dictionary definition list
12. Working With Links
  - 12.1. Attributes for links
  - 12.2. Relative links
  - 12.3. Absolute links
  - 12.4. Creating a link for an image/text
  - 12.5. Creating a link to an email address
  - 12.6. Creating a link to a placeholder
13. Working With Images
  - 13.1. Attributes for images
  - 13.2. Types of images
14. Use of Div and Span
  - 14.1. Div tags
  - 14.2. Span tags

COURSE CONTENT AND SCOPE (CONTINUED)

- 15. HTML5
  - 15.1. Difference between HTML5 and older versions of (x)HTML
  - 15.2. New HTML5 specific tags
  - 15.3. HTML5 head elements
  - 15.4. HTML5 section elements
  - 15.5. HTML5 grouping elements
  - 15.6. HTML text-level semantic elements
- 16. Building a Simple Website
  - 16.1. Creating navigation
  - 16.2. Linking up pages
    - 16.2.1. Non-linear vs. linear navigation
- 17. Cascading Style Sheets (CSS) For Page Structuring and Formatting
  - 17.1. Introduction
  - 17.2. The importance of CSS
  - 17.3. How CSS works
  - 17.4. Defining styles
    - 17.4.1. Creating external style sheets
    - 17.4.2. Creating embedded styles
    - 17.4.3. Creating inline styles
  - 17.5. Selector types
    - 17.5.1. The universal selector
    - 17.5.2. Tag selector
    - 17.5.3. The ID selector
    - 17.5.4. The class selector
  - 17.6. CSS syntax
    - 17.6.1. Understanding the parts of a style
    - 17.6.2. Using comments
    - 17.6.3. Selecting code with class and ID selectors
    - 17.6.4. Selecting behaviors with pseudo selectors
    - 17.6.5. Using descendant and attribute selectors
    - 17.6.6. Understanding units and values
    - 17.6.7. Understanding the box model
  - 17.7. Formatting text
    - 17.7.1. Choosing fonts
    - 17.7.2. Changing text size
    - 17.7.3. Modifying font attributes
  - 17.8. Formatting images
    - 17.8.1. Creating and formatting image borders
    - 17.8.2. Wrapping text around images
  - 17.9. Using color and backgrounds
    - 17.9.1. Using color and properties and values
    - 17.9.2. Using background colors and images
  - 17.10. Creating borders
    - 17.10.1. Using the border property
    - 17.10.2. Modifying border properties

COURSE CONTENT AND SCOPE (CONTINUED)

- 17.11. Formatting links
  - 17.11.1. Formatting links using pseudo-selectors
  - 17.11.2. Using text decoration
  - 17.11.3. Formatting links with sprites
- 17.12. Position
  - 17.12.1. Absolute position property
  - 17.12.2. Relative property
  - 17.12.3. Fixed positioning
  - 17.12.4. Z-index
  - 17.12.5. Using floats
  - 17.12.6. Using clears
- 17.13. Fixed and flexible layouts
- 17.14. CSS3
  - 17.14.1. Overview of CSS3 capabilities
  - 17.14.2. CSS3 selectors
  - 17.14.3. Working with color in CSS3
  - 17.14.4. CSS3 typography
  - 17.14.5. CSS3 and page layout
  - 17.14.6. CSS3 box model
    - 17.14.6.1. Borders
    - 17.14.6.2. Box shadows
    - 17.14.6.3. CSS3 backgrounds
  - 17.14.7. CSS3 transitions and transforms
- 17.15. CSS best practices
  - 17.15.1. Organizing CSS
  - 17.15.2. Print style sheets

APPROPRIATE READINGS

Students may be given reading assignments from the textbook, supplemental reading assignments, industry-related periodicals or magazines, manuals, online help pages, articles posted on the Internet, and information from Web sites, online libraries and databases.

WRITING ASSIGNMENTS

Typical writing assignments may include completing assigned reports, providing written answers to assigned questions, performing internet research and reporting on that research.

OUTSIDE ASSIGNMENTS

Assignments may include, but are not limited to: appropriate internet research, reading, preparing reports and studying as needed to perform successfully in class.

APPROPRIATE ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING

Assignments which demonstrate critical thinking may include, but are not limited to outlining a web based project, use and creation of file/folder structures, creation of hand-coded non-linear

APPROPRIATE ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING  
(CONTINUED)

web sites and publishing projects and sites to the web. Students may also be expected to participate in online class discussion posts, in-class discussions and project reviews.

EVALUATION

Evaluation that a student has met the course competencies will include multiple measures of performance related to the course objectives. Evaluation methods may include, but are not limited to performance in a variety of activities and assignments, such as completing a research project individually or in a group, hands-on projects, demonstration of use of the internet, quizzes, class participation, written and practical tests, attendance and punctuality.

Upon successful completion of the course a Certificate of Course Completion will be issued. Upon successful completion of all courses in the program a Certificate of Program Completion will be issued.

METHOD OF INSTRUCTION

Methods of instruction, may include, but are not limited to lectures, discussion, hands-on demonstrations, computer-assisted instruction, laboratory assignments and field trips. This course, or sections of this course, may be offered through distance education.

TEXTS AND SUPPLIES

Textbooks:

*HTML, XHTML, and CSS*, Elizabeth Castro, New Riders, current edition

*CSS Pocket Reference*. Eric A. Meyer, O'Reilly Media, current edition

*Web Development and Design Foundations with HTML5*, Terry Felke-Morris, Addison-Wesley, current edition

*HTML5 for Web Designers*, Jeremy Keith, A Book Apart Jeffrey Zeldmann, current edition

Online Video Training:

[www.lynda.com](http://www.lynda.com)

Supplies:

Pen, journal (composition book), notebook paper and a soft 3-ring binder, or a one-subject 110 sheet college ruled notebook, and appropriate storage media such as a USB Drive or external hard drive.

WEB PROGRAMMING BEGINNING  
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PREPARED BY Emily Kay DATE February, 16, 2014

REVISED BY \_\_\_\_\_ DATE \_\_\_\_\_

Instructors must meet all requirements stated in Policy 3100 (Student Rights, Responsibilities and Administrative Due Process), and the Attendance Policy set forth in the Continuing Education Catalog.

REFERENCES:

San Diego Community College District Policy 3100  
California Community Colleges, Title 5, Section 55002  
Continuing Education Catalog