

## DMAC111 : Fundamentals of Web Development

### General Information

Author:	<ul style="list-style-type: none"><li>Suzanne Ama</li><li>Stallings, Michelle</li><li>Taton, Vickie</li></ul>
Course Code (CB01) :	DMAC111
Course Title (CB02) :	Fundamentals of Web Development
Department:	Business Information Technolog
Proposal Start:	Fall 2022
TOP Code (CB03) :	(0614.30) Website Design and Development
SAM Code (CB09) :	Clearly Occupational
Distance Education Approved:	Yes
Course Control Number (CB00) :	CCC000547073
Curriculum Committee Approval Date:	11/01/2019
Board of Trustees Approval Date:	12/12/2019
External Review Approval Date:	12/12/2019
Course Description:	This entry-level course provides students with the skills to create web pages in Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS) using a text editor. This course emphasizes current web standards which include code validation, semantics, and separating content from style. Students also learn how to select a web hosting provider, purchase a domain name, and construct a web site with WordPress.
Submission Type:	New Course Materials Mandatory Revision  Update for Program Review. This course was assessed in Fall 2019 and there are no impacts on this course revision.
Author:	No value

### Faculty Minimum Qualifications

Master Discipline Preferred:	<ul style="list-style-type: none"><li>Computer Science</li></ul>
Alternate Master Discipline Preferred:	No value
Bachelors or Associates Discipline Preferred:	<ul style="list-style-type: none"><li>Computer Information Systems (Computer network installation, microcomputer technology, computer applications)</li><li>Multimedia</li></ul>
Additional Bachelors or Associates Discipline Preferred:	No value

### Course Development Options

**Basic Skills Status (CB08)**

Course is not a basic skills course.

 Allow Students to Gain Credit by Exam/Challenge**Rationale For Credit By Exam/Challenge**

No value

**Course Support Course Status (CB26)**

Course is not a support course

**Course Special Class Status (CB13)**

Course is not a special class.

**Allowed Number of Retakes**

0

**Retake Policy Description**

Type:|Non-Repeatable Credit

**Grade Options**

- Letter Grade Methods
- Pass/No Pass

**Course Prior To College Level (CB21)**

Not applicable.

 Allow Students To Audit Course**Associated Programs** Course is part of a program (CB24)**Associated Program****Award Type****Active**

CC Web Professional

Certificate of Achievement

Summer 2018

CC Web Professional

A.S. Degree Major

Summer 2018

Digital Media and Marketing

Certificate of Achievement

Fall 2020

Web Professional Associate of Science (In Development)

A.S. Degree Major

Fall 2022

Web Professional Certificate of Achievement (In Development)

Certificate of Achievement

Fall 2022

**Transferability & Gen. Ed. Options****Course General Education Status (CB25)**

Y

**Transferability**

Transferable to CSU only

**Transferability Status**

Approved

**Units and Hours**

## Summary

<b>Minimum Credit Units (CB07)</b>	3
<b>Maximum Credit Units (CB06)</b>	3
<b>Total Course In-Class (Contact) Hours</b>	90
<b>Total Course Out-of-Class Hours</b>	72
<b>Total Student Learning Hours</b>	162
<b>Faculty Load</b>	0

## Credit / Non-Credit Options

### Course Credit Status (CB04)

Credit - Degree Applicable

### Course Non Credit Category (CB22)

Credit Course.

### Non-Credit Characteristic

No Value

### Course Classification Status (CB11)

Credit Course.

Variable Credit Course

### Funding Agency Category (CB23)

Not Applicable.

Cooperative Work Experience Education Status (CB10)

## Weekly Student Hours

	<b>In Class</b>	<b>Out of Class</b>
Lecture Hours	2	4
Laboratory Hours	3	0
Activity Hours	0	0

## Course Student Hours

<b>Course Duration (Weeks)</b>	18
<b>Hours per unit divisor</b>	54
<b>Course In-Class (Contact) Hours</b>	
Lecture	36
Laboratory	54
Activity	0
<b>Total</b>	90
<b>Course Out-of-Class Hours</b>	
Lecture	72
Laboratory	0
Activity	0
<b>Total</b>	72

## Time Commitment Notes for Students

No value

## Faculty Load

Extra Duties: 0

Faculty Load: 0

## Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

## Pre-requisites, Co-requisites, Anti-requisites and Advisories

### Advisory

#### ENGLC101 - Freshman Composition

In DMA C111, students are expected to analyze college-level reading material and write clearly structured critiques. Comprehending, evaluating, and organizing information, as well as communicating effectively in writing are all skills taught in English C101 Freshman Composition. **Outcomes**

- Read, analyze, and evaluate a variety of university-level texts for content, context, and rhetorical merit with consideration of tone, audience, and purpose.
- Integrate the ideas of others through paraphrasing, summarizing, and quoting without plagiarism.
- Find, evaluate, analyze, interpret, and see the relations among primary and secondary sources, incorporating them into written essays using accurate MLA documentation and formatting.
- Proofread and edit essays for presentation so they exhibit no disruptive errors in English grammar, usage, or punctuation.

### AND

### Advisory

#### BSOTC075 - Computer Literacy

Students are expected to have basic computer literacy and be able to perform computer start up and shut down procedures correctly; use computer input and output devices, such as the keyboard, mouse, stylus, trackball, or printer with proficiency; access and manage login accounts and documents effectively, including downloading, creating, naming, retrieving, and decompressing files and folders with an awareness of file size, location of saved files and folders, and available space on storage media and a clear distinction between various campus, email, and course login accounts; perform editing tasks, such as copying, cutting, and pasting of content and applying spell checking; send an outgoing e-mail with an attachment, and open an incoming e-mail and its attachment; search and navigate the Internet and other types of media and environments easily; and be aware of the need to evaluate Internet content for relevance, authenticity, authority, and currency.

#### **Outcomes**

- Perform basic computer tasks using hardware and software functions including startup, login, shutdown, and basic input/output procedures.
- Recognize and use programs to create and edit introductory word processing, spreadsheet, and presentation software files, including MS Office.
- Access and manage login accounts and documents effectively, including downloading, creating, naming, copying, deleting, retrieving, and compressing/decompressing files and folders with an awareness of file size, location of saved files and folders, and available space on storage media, all with a clear distinction between various email, and course login accounts.
- Open and use an email account including sending and receiving email with attachments, saving files, and managing the inbox.
- Search and navigate the Internet and other types of media environments with an awareness of relevance, authenticity, authority, and currency.

## Entrance Skills

Entrance Skills	Description
No value	No value

## Limitations on Enrollment

Limitations on Enrollment

Description

No value

No value

## Specifications

Methods of Instruction

Methods of Instruction

Project-based learning

Rationale

Students apply coding skills to a semester-long web site project, to which they add features each week.

Methods of Instruction

Peer analysis, critique & feedback

Rationale

Students provide feedback and critique to each other in asynchronous discussion forums.

Methods of Instruction

Problem Solving

Rationale

Students solve design problems that are typical of projects in the workplace.

Methods of Instruction

Lecture

Rationale

Students read instructor lectures and watch video lectures to learn concepts and techniques that are needed for assignments.

Methods of Instruction

Laboratory

Rationale

Students practice techniques and tools through formative exercises, which are posted to asynchronous discussion for instructor review.

Methods of Instruction

Demonstration

Rationale

Students watch captioned video content to observe the use of software tools and techniques.

Methods of Instruction

Discussion

Rationale

Students post their work to allow for instructor and peer review.

**Methods of Instruction**

Audiovisual

**Rationale**

Students watch captioned video content to observe the use of software tools and techniques.

**Assignments**

- A. Textbook readings (Example: students read chapter on site validation)
- B. Online reading assignments (Example: students study web page with complete list of CSS properties.)
- C. HTML/CSS assignments Example: Students create an external CSS to control the appearance of text on a web page.

**Methods of Evaluation****Rationale**

Project

A. HTML/CSS assignments  
 Example: Students create an external CSS to control the appearance of text on a web page.

Tests

B. Exam  
 Example: Students complete a midterm exam relating to HTML syntax.

Participation

C. Discussions  
 Example: Students provide feedback on other students' assignments by running validation reports and explaining errors.

Distance Education Description: how outcomes are evaluated

The evaluation criteria and rigor are identical, regardless of delivery mode.

**Equipment**

No special equipment is needed.

**Textbooks****Author****Title****Publisher****Date****ISBN**

Frain, B.

Responsive Web Design with HTML5 and CSS

Packt Publishing

2020

978-1839211560

**Other Instructional Materials**

No Value

**Materials Fee**

No

**Learning Outcomes and Objectives****Course Objectives**

No value

**CSLOs**

Use valid HTML syntax to construct web pages.

Expected SLO Performance: 75.0

*Business Information Technology*  
Web Professional  
Certificate of Achievement

3. Use valid markup, cascading style sheets, semantic encoding, accessibility compliance, and error-free scripting in the creation of Web content. Assessment: This will be assessed and scored with an exam.

**Use HTML tags according to semantic function.**

Expected SLO Performance: 75.0

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Certificate of Achievement

3. Use valid markup, cascading style sheets, semantic encoding, accessibility compliance, and error-free scripting in the creation of Web content. Assessment: This will be assessed and scored with an exam.

**Apply valid CSS to control page layout and aesthetic style.**

Expected SLO Performance: 75.0

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Web Professional  
Certificate of Achievement

3. Use valid markup, cascading style sheets, semantic encoding, accessibility compliance, and error-free scripting in the creation of Web content. Assessment: This will be assessed and scored with an exam.

**Install, add content, manage settings, and configure plugins in a WordPress site installation.**

Expected SLO Performance: 75.0

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3. Use valid markup, cascading style sheets, semantic encoding, accessibility compliance, and error-free scripting in the creation of Web content. Assessment: This will be assessed and scored with an exam.

## Outline

### Course Outline

- Web Technologies; History; Standards; and Best Practices
  - Web Technologies
  - Development of HTML5
  - Web Standards
    1. Validation
    2. Accessibility (WCAG, Section 508)
  - Development best practices
    1. Mobile First Design/Responsive Design
    2. File organization (server, cloud storage)
- HTML
  - DOCTYPE
  - Semantic Content Types and Elements
    1. Root
    2. Metadata
    3. Sections
    4. Block Text
    5. Inline/Phrasing Text
    6. Non-Text Content
    7. Tabular Data
    8. Forms
    9. Comments
- Cascading Style Sheets
  - Use
    1. Browser
    2. Inline
    3. Embedded/Internal
    4. External
  - Selectors
    1. Type

- 2. ID
  - 3. Class
  - 4. Descendent
  - 5. Attribute
- Properties
  - 1. Text Properties
  - 2. Background Properties
  - 3. Border Properties
  - 4. Box Model Theory and Properties
  - 5. Position Properties
- Domain Registration
  - Searching for available domains
  - Purchasing a domain
  - Transferring DNS
- Web Hosting
  - Choosing a Web Host
  - The cPanel
    - 1. File Manager
    - 2. Web Applications
    - 3. Databases
    - 4. Email
    - 5. Metrics
    - 6. Cron Jobs
- Content Management Systems (CMS)
  - Description and Advantages
  - Comparison Between CMSs
  - WordPress
    - 1. Installation
      - Download Current Version
      - Create Database and User
      - Upload WordPress
      - Install WordPress
    - 2. Dashboard
      - Posts
      - Media
      - Pages
      - Comments
      - Appearance
      - Plugins
      - Users
      - Settings
      - Upgrading
    - 3. Themes
      - Choosing a theme
      - Modifying theme settings
      - Custom CSS

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## Lab Outline

- HTML
  - DOCTYPE
  - Validation
  - Semantic Content Types and Elements
    - 1. Root
    - 2. Metadata
    - 3. Sections
    - 4. Block Text
    - 5. Inline/Phrasing Text
    - 6. Non-Text Content
    - 7. Tabular Data
    - 8. Forms
    - 9. Comments
- Cascading Style Sheets
  - Use
    - 1. Browser



- 2. Inline
  - 3. Embedded/Internal
  - 4. External
- Selectors
  - 1. Type
  - 2. ID
  - 3. Class
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## Delivery Methods

Delivery Method: Please list all that apply -Face to face -Online (purely online no face-to-face contact) -Online with some required face-to-face meetings ("Hybrid") -Online course with on ground testing -iTV – Interactive video = Face to face course with significant required activities in a distance modality -Other

- Face to face
- Online (purely online no face-to-face contact)
- Online with some required face-to-face meetings ("Hybrid")
- iTV – Interactive video = Face to face course with significant required activities in a distance modality

**Rigor Statement:** Assignments and evaluations should be of the same rigor as those used in the on-ground course. If they are not the same as those noted in the COR on the Methods of Evaluation and out-of-class assignments pages, indicate what the differences are and why they are being used. For instance, if labs, field trips, or site visits are required in the face to face section of this course, how will these requirements be met with the same rigor in the Distance Education section? Describe the ways in which instructor-student contact and student-student contact will be facilitated in the distance ed environments.

All assignments in distance education course sections of DMA C111 are of the same rigor as those in the on-ground section, except that students in purely online sections will submit all of their assignments virtually. Instructor evaluation of student work in distance education course sections is the same as in the on-ground course section, except that evaluation of student work in the online version is presented virtually. Instead of onsite lectures, hybrid and online courses use a variety of methods including, but not limited to videos, and written lecture notes. Students will interact with the instructor and other students via discussion forums or similar methods.

**Good practice requires both asynchronous and synchronous contact for effective contact. List the methods expected of all instructors teaching the course.** -Learning Management System -Discussion Forums -Message -Other Contact -Chat/Instant Messaging -E-mail - Face-to-face meeting(s) -Newsgroup/Discussion Board -Proctored Exam -Telephone -iTV - Interactive Video -Other

- Discussion Forums
- Message
- E-mail
- Other

**Software and Equipment:** What additional software or hardware, if any, is required for this course purely because of its delivery mode? How is technical support to be provided?

Students will need their own computer, but greater than average capacity is not necessary. All software that is used is open source.

**Accessibility:** Section 508 of the Rehabilitation Act requires access to the Federal government's electronic and information technology. The law covers all types of electronic and information technology in the Federal sector and is not limited to assistive technologies used by people with disabilities. It applies to all Federal agencies when they develop, procure, maintain, or use such technology. Federal agencies must ensure that this technology is accessible to employees and the public to the extent it does not pose an "undue burden". I am using -iTV—Interactive Video only -Learning management system -Publisher course with learning management system interface.

- Learning management system

**Class Size:** Good practice is that section size should be no greater in distance ed modes than in regular face-to-face versions of the course. Will the recommended section size be lower than in on-ground sections? If so, explain why.

The recommended section size for online courses is not lower than on-ground sections.

**Emergency Distance Education Options** The course will operate in remote delivery mode when all or part of the college service area is under an officially declared city, county, state, or federal state of emergency, including (check all that apply) - Online including all labs/activity hours - Hybrid with online lecture and onsite lab/activity hours - Correspondence education in high school and prison facilities - None. This course will be cancelled or paused if it cannot be held fully onsite.

- Online including all labs/activity hours