

Northern Marianas College
CURRICULUM ACTION REQUEST

Effective Semester / Session: Fall 2018

Type of Action:

- New
- Modification
- Move to Inactive (Stop Out)
- Cancellation

Course Alpha and Number: CS 222

Course Title: Web Design and Programming

Reason for initiating, revising, or canceling:

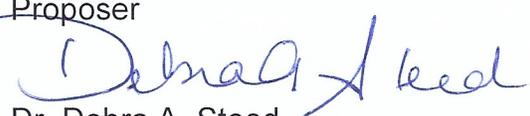
This course guide is being updated to reflect the correct English placement level and the current textbook edition has been added. The method of evaluation is also being clarified.


Dr. Debra A. Steed

5-31-18

Proposer

Date


Dr. Debra A. Steed

5-31-18

Director, School of Business

Date


Zerlyn A. Taimañao

6/6/18

Acting Dean, Learning and Student Success

Date

Northern Marianas College

Course Guide

Course: CS 222 Web Design and Programming

1. Department

Business

2. Purpose

This course introduces the topic of Web Site Design with the focus being computer coding methodologies to include HTML5, and CSS3. HTML5 will be presented as a document structure language and CSS3 will be presented as the presentation (format) description language. Students will create and manipulate computer images to create web graphics for use on their web site. Fundamental computer networking concepts will be covered so that students understand how the Internet works. Students will host their web site on a web server. The course is proposed to be required for AAS Business Computer Applications students and will likely be of interest to the entire college community.

3. Description

A. Required/Recommended Textbook(s) and Related Materials

Required:

Castro, E. & Hyslop, B. (2013). *HTML5 and CSS 3: Visual Quick Start Guide*. 8th ed. Peachspring Press.

Readability level: Grade 11

Chrome browser (or HTML 5 compatible browser) Headsets,
Storage device for backup: USB flash drive – 2GB or higher.

B. Contact Hours

1. **Lecture:** 4 hours per week / 60 hours per semester
2. **Lab:** 1 hour per week included
3. **Other:** None

C. Credits

1. **Number:** 4 including 1 credit of computer lab
2. **Type:** Regular degree credits

D. Catalogue Course Description

This course introduces the topic of Web Site Design with the focus being computer coding methodologies to include HTML5, and CSS3. HTML5 will be presented as a document structure language and CSS3 will be presented as the presentation (format) description language. Students will create and manipulate

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computer images to create web graphics for use on their web site. Fundamental computer networking concepts will be covered so those students understand how the Internet works. Students will host their web site on a web server. Prerequisite: CS 103. English Placement Level: EN 095. Math Placement Level: MA 132. (Offered: Fall)

E. Degree or Certificate Requirements Met by Course

This course is a required course for the A.A.S. degree in Business Administration with an emphasis in Computer Applications and The Certificate of Completion in Computer Applications.

F. Course Activities and Design

This course will teach students how to code using a text editor in HTML5 and CSS3 methodologies. The student will learn how to create and manipulate web graphics for use on their website. Students will upload their files to a web server and view their web site in a browser. Classes will include scheduled computer lab time, lectures with demonstrations, in-class assignments that allow students to practice what they learn, as well as larger projects.

4. Course Prerequisite(s); Concurrent Course Enrollment; Required English/Mathematics Placement Level(s)

Prerequisite(s): CS 103
English Placement Level: EN 095
Math Placement Level: MA 132

5. Estimated Cost of Course; Instructional Resources Needed

Cost to the College: Instructor's salary

Cost to the Student: Tuition for a 4-credit course, and the cost of the textbook.

Instructional resources needed for this course include, instructional computer lab, multi-media system, whiteboard, dry-erase markers, and appropriate reference materials.

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6. Method of Evaluation

Student learning will be evaluated on the basis of tests and quizzes, computer lab exercises/assignments, practical project assignments, attendance, and class participation.

NMC's grading and attendance policies will be followed.

7. Course Outline

This is a topical outline and does not necessarily indicate the sequence of instruction.

- 1.0 Web page building blocks;
- 2.0 Working with web page files/basic html structure;
- 3.0 Text;
- 4.0 Images / links;
- 5.0 CSS building blocks;
- 6.0 Working with style sheets / defining selectors;
- 7.0 Formatting text with styles;
- 8.0 Layout with styles / style sheets for mobile to desktop;
- 9.0 Working with web font;
- 10.0 Enhancement with CSS3;
- 11.0 Lists/forms;
- 12.0 Video, audio and other multimedia;
- 13.0 Tables/working with scripts;
- 14.0 Testing & debugging web pages;
- 15.0 Publishing your pages on the web; and

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16.0 Work on project.

8. Instructional Goals

This course will introduce students to:

- 1.0 Valid HTML5 strict code to define the structure of a web document;
- 2.0 Good web design principle;
- 3.0 Features and differences between various computer image formats;
- 4.0 How to create custom web graphics and modify existing graphics;
- 5.0 Create CSS3 document presentation rules;
- 6.0 Create CSS3 element redefinition and classes and apply as inline styles, embedded CSS3, and external CSS3; and
- 7.0 Manage a web site by transferring files to a remote web server.

9. Student Learning Outcomes

Upon successful completion of this course, students will be able to:

- 1.0 Create web documents that utilize valid HTML5 strict code to define the structure of a web document;
- 2.0 Identify the features and differences between various computer image formats;
- 3.0 Create custom graphics and modify existing graphics for use on their personal web site;
- 4.0 Create CSS3 document presentation rules and apply this knowledge in the development of a personal website. This includes application of both element redefinition and classes to inline style, embedded CSS3, and external CSS3;
- 5.0 Design a web site that applies good design principles and communicate a topic of interest using text and graphics;
- 6.0 Create a multiple webpage web site using the coding methodologies-

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HTML5 and CSS3, and include web graphics; and

- 7.0 Organize text and graphics files for the web site using relative-addressing throughout and then synchronize web files between a local drive and web server using FTP (File Transfer Protocol).

10. Assessment Measures

Assessment of student learning may include, but not be limited to, the following:

- 1.0 Tests and quizzes;
- 2.0 Computer lab assignments;
- 2.0 Practical project assignments;
- 3.0 Project presentation; and
- 4.0 Final exam.