

CSIT 133: WEB DEVELOPMENT FUNDAMENTALS

1. Course Information

Subject

CSIT - Computer Science/ Information Technology

Course Number

133

School

Science, Technology, Engineering, Mathematics

Course Title

Web Development Fundamentals

2. Hours

Semester Hours

3.00000

Lecture

3

Lab

0

Practicum

0

3. Catalog Description

For display in the online catalog

This course is designed to meet the needs of students who wish to enter the field of Internet Development. It will provide a rigorous treatment of Hypertext Markup Language (HTML) using the current XHTML standard. Other topics include Cascading Style Sheets (CSS) [external and embedded Style]; CSS1 and CSS2; design elements and applications that enhance web pages; and saving and editing files on a remote server. Students will complete hands on projects as part of the requirements for the course. Open lab time required. Prerequisite: Working knowledge of Microsoft Windows.

4. Requisites

Prerequisites

None

Corequisites

None

5. Course Type

Course Fee Code

3

Course Type for Perkins Reporting

vocational (approved for Perkins funding)

6. Justification

Describe the need for this course

This is a program-specific elective in the AAS Technical Studies with Computer Technology Option and an elective in the AS General Studies Computer Studies Option

7. General Education

Will the college submit this course to the statewide General Education Coordinating Committee for approval as a course, which satisfies a general education requirement?

No

If the course does not satisfy a general education requirement, which of the following does it satisfy:

Elective

8. Consistency with the Vision and Mission Statements, the Academic Master Plan, and the strategic initiatives of the College

Please describe how this course is consistent with Ocean County College's current Vision Statement, Mission Statement, Academic Master Plan, and the strategic initiatives of the College:

Add item	
1	Offer comprehensive educational programs that develop intentional learners of all ages and ensure the full assessment of student learning in these programs. (Mission Statement)
2	Foster educational innovation through effective teaching-learning strategies, designed to develop and nurture intentional learners who are informed and empowered. (Vision Statement)
3	Employ technology and learning outcomes assessment to ensure student success in an increasingly diverse and complex world. (Vision Statement)
4	Prepare students for entrance into the workforce and/or for successful transfer to other educational institutions. (Academic Master Plan)
5	Seek to empower students through the mastery of intellectual and Practical Skills. (Academic Master Plan)
6	Challenge students to transfer information into knowledge and knowledge into action. (Academic Master Plan)

9. Related Courses at Other Institutions

Comparable Courses at NJ Community Colleges

Institution

Atlantic Cape CC

Course Title

Web Page Design

Course Number

CISM163

Number of Credits

3

Institution

Brookdale CC

Course Title

Web Design Using HTML

Course Number

COMP166

Number of Credits

3

Institution

Rowan College at Burlington County

Course Title

Fundamentals of Web Design

Course Number

CIS155

Number of Credits

4

Institution

Camden County College

Course Title

HTML Programming

Course Number

CSC151

Number of Credits

3

Institution

Mercer County CC

Course Title

Web Design I

Course Number

DMA145

Number of Credits

3

Transferability of Course**Georgian Court University**

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
EC Elective Credit, 3 credits	Elective	

Kean University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CPSX 1003, 3 credits	Elective	

Monmouth University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
IT250 Internet and Network Technology 3 credits	Elective	

Rowan University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CS10310 Introduction to Web Development 3 credits	GenED	

Rutgers - New Brunswick, Mason Gross School of the Arts

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
		Will not transfer

Stockton University

Course Code, Title, and Credits	Transfer Category	If non-transferable; select status
CSIS EC, 4 credits (students will receive 3 credits)	Elective	

10. Course Learning Outcomes**Learning Outcomes**

Students who successfully complete this course will be able to:	
CLO1	Develop a basic web page following standards using XHTML tags, properties, and C.S.S. (cascading style sheet)
CLO2	Design a web page with fonts, colors, graphics and tables as a layout tool.
CLO3	Create hypertext links and multimedia elements for a web page.
CLO4	Employ Frames to display multiple web pages.
CLO5	Create web page forms and process using external CGI script
CLO6	Identify and Integrate External Style Sheets.
CLO7	Demonstrate competency of a server-based web page.

11. Topical Outline

(include as many themes/skills as needed)

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
T01	Develop a basic web page 1) Explore the structure of the World Wide Web (WWW) 2) Learn the basic principles of Web documents 3) Use HTML tags to: a) format text b) format headings c) format paragraphs d) create ordered, unordered, and definition lists e) insert graphic images into an HTML document f) insert horizontal lines into an HTML document	Hands-on; In-class & Lab exercises	Programming Exercises; Exam	CLO1
T02	Add hypertext links to a web page 1) Create hypertext links between elements within a web page 2) Create hypertext links between web pages 3) Create hypertext links to web pages on the Internet 4) Create hypertext links to various Internet resources such as File Transfer Protocol (FTP) services and newsgroups 5) Distinguish between and be able to use absolute and relative path names	Hands-on; In-class & Lab exercises	Programming Exercises; Exam	CLO3

T03	<p>Work with Fonts, Colors, and Graphics</p> <ol style="list-style-type: none"> 1) Learn how HTML handles color to <ol style="list-style-type: none"> a) create a color scheme for a web page b) place background image on a web page c) define colors for the pages and for special characters 2) Work with font sizes, colors, and types 3) Learn about different image file formats 4) Create web-enhanced image objects 5) Control the placement and appearance of images on a web page 6) Work with client-side image maps 	Hands-on; In-class & Lab exercises	Programming Exercises; Exam	CLO2, 3
T04	<p>Design a web page with tables as a layout tool</p> <ol style="list-style-type: none"> 1) Create a text table 2) Create table headers and captions 3) Control the appearance of a table and table text 4) Create table cells that span several rows or columns 5) Use nested tables to enhance page design 	Hands-on; In-class & Lab exercises	Programming Exercises; Exam	CLO2
T05	<p>Use Frames to display Multiple Web Pages</p> <ol style="list-style-type: none"> 1) Create frames for a web site 2) Control the appearance and placement of frames 3) Control the behavior of hypertext links on a web page using frames 4) Use reserved target names 5) Create a page that is viewable by browsers that support frames and by browsers that do not support frames 6) Modify the appearance of frame borders 7) Create and implement floating frames 	Hands-on; In-class & Lab exercises	Programming Exercises; Exam	CLO4
T06	<p>Create web page forms</p> <ol style="list-style-type: none"> 1) Use Common Gateway Interface (CGI) scripts 2) Understand the various parts of an online form 3) Create form elements 4) Create hidden fields 5) Work with form attributes 6) Send data from a form <ol style="list-style-type: none"> a) to a CGI script b) without using CGI script 	Hands-on; In-class & Lab exercises	Programming Exercises; Exam	CLO5, 7

T07	Use Cascading Style Sheets 1) History and theory of CSS 2) Create a) inline styles b) embedded styles c) external style sheets 3) Use cascading style sheets to a) format paragraphs, lists and headings b) format hypertext links in their four conditions c) define content with the class and id attributes d) use <div> and tags and create styles for them e) use Cascading Style sheets to design page layout	Hands-on; In-class & Lab exercises	Programming Exercises; Exam	CLO6
T08	Use multimedia elements on a web page. 1) Work with external and embedded multimedia files 2) Use graphic elements as links 3) Discuss sound elements and usage within a web page	Hands-on; In-class & Lab exercises	Programming Exercises; Exam	CLO2, 3

12. Methods of Instruction

In the structuring of this course, what major methods of instruction will be utilized?

Class lecture, discussion, demonstrations, online presentations, analysis and critique of current web sites, and student web site design

13. General Education Goals Addressed by this Course (this section is to fulfill state requirements)

Information

Technological Competency

Yes

Related Course Learning Outcome

All

Related Outline Component

All

Assessment of General Education Goal (Recommended but not limited to)

Mastering the basic skills necessary to create a functional and well-designed web site. Knowledge of various design methods, practices and paradigms

Independent/Critical Thinking

Yes

Related Course Learning Outcome

All

Related Outline Component

All

Assessment of General Education Goal (Recommended but not limited to)

Mastering the basic skills necessary to take a design statement and turn it into a functional website

14. Needs**Instructional Materials (text etc.):**

Appropriate textbooks and/or open education resources will be selected. Contact the department for current adoptions. Class notes, presentations, software and online materials.

Technology Needs:

n/a

Human Resource Needs (Presently Employed vs. New Faculty):

Four (4) presently employed full-time faculty plus additional Adjunct Professors as needed.

Facility Needs:

Laboratory classrooms equipped with computer workstations, each configured to support website development. Podium computer similarly equipped plus the ability to present audio-video presentations to the class.

15. Grade Determinants**The final grade in the course will be the cumulative grade based on the following letter grades or their numerical equivalents for the course assignments and examinations****A: Excellent****B+: Very Good****B: Good****C+: Above Average****C: Average****D: Below Average****F: Failure****I: Incomplete****R: Audit****For more detailed information on the Ocean County College grading system, please see Policy #5154.****16. Board Approval****History of Board approval dates**

Revised: December 1990; February 27, 1996; April 30, 1996; December 1998; May 4, 2004; Feb. 28, 2006; March 8, 2006

Board of Trustees Approval Date: December 11, 2006

Board of Trustees Approval Date: March 26, 2012

Board of Trustees Approval Date: February 25, 2013

Board of Trustees Approval Date: June 24, 2013

Board of Trustees Approval Date: July 23, 2020

