Course Syllabus

Department: Computing Sciences

Date: 2/28/2014

I. Course Prefix and Number: CSC 164

   Course Name: Introduction to Scripting for New Media

   Credit Hours and Contact Hours: 3 credit hours and 3 contact hours

   Catalog Description including pre- and co-requisites:

   Introduction to scripting for New Media serves as a beginning level programming course for AS New Media students. This course emphasizes problem solving by way of the development and implementation of scripts in a web based environment. Writing code and using external scripting libraries in a structured object oriented scripting language will be covered. A contemporary scripting language is used throughout the course.

   Pre-requisites: CSC162 Web Development for New Media

   Relationship to Academic Programs and Curriculum including SUNY Gen Ed designation if applicable:

   This course is a requirement for AS New Media degree program.

II. Course Student Learning Outcomes

   Upon completion of the course the participant will be able to:

   A. Use operators, variables, arrays, control structures, functions and objects in a scripting language

   B. Map HTML using the DOM - Document Object Model.

   C. Identify popular scripting libraries. Use these libraries.

   D. Create dynamic styles.

   E. Create animation on a web page.

   F. Create forms and use regular expressions for form validation.

   G. Build an application using scripts and external code libraries of scripts.

   H. Create a web based application that has a user interface that follows good GUI design guidelines.

   I. Debug a script.

   J. Plan a web based application (that contains many scripts), develop an application and present it to the class.

   College Learning Outcomes Addressed by the Course: (check each College Learning Outcome addressed by the Student Learning Outcomes)
III. Assessment Measures (Summarize how the college and student learning outcomes will be assessed): *For each identified outcome checked, please provide the specific assessment measure.*

<table>
<thead>
<tr>
<th>List identified College Learning Outcomes(s)</th>
<th>Specific assessment measure(s)</th>
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<tbody>
<tr>
<td>Reading, computer literacy, critical thinking, information resources</td>
<td>Hands-on scripting projects and testing strategies will assess the ability to solve problems and debug problems encountered in the problem solving and scripting process.</td>
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<tr>
<td>Reading, critical thinking, computer literacy, information literacy</td>
<td>Online text tests will assess the student’s ability to comprehend, interpret, analyze, and evaluate course content and reading materials.</td>
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<tr>
<td>Reading, critical thinking, computer literacy</td>
<td>In class final project will assess reading, computer literacy (scripting) and problem solving skills.</td>
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IV. Instructional Materials and Methods

Types of Course Materials

Textbook, and various web based tutorials.

Methods of Instruction (e.g. Lecture, Lab, Seminar …):

Lecture and hands-on lab activities.

V. General Outline of Topics Covered:

a. Introduction to Scripting
   i. Using an editor to write a script
   ii. Standalone script, and scripting within an html file
   iii. Execution in a browser

b. Intro to Functions
i. Why we use them
ii. How to use them
iii. How to write them

c. Writing Loops
   i. For, While constructs

d. Control Flow
   i. If (conditional) statements and other ways to control execution in a script

e. Data Structures
   i. Arrays
   ii. Other objects, classes and methods

f. Using Scripting Libraries
   i. Define them, discuss advantages and disadvantages of their use
   ii. Frameworks, and using some of the more current/popular ones
   iii. Using CDN (Content Delivery Networks)

g. Putting everything together
   i. Developing an effective interface
   ii. Using all your resources to plan, design and develop a solid application