Title of Course: Interaction Design with Multimedia Programming

A. Description:
Students will learn to design interfaces and manipulate graphics, text, video and other multimedia elements through a scripting language such as Flash ActionScript. An emphasis will be placed on planning projects and using programming concepts for the development of games, e-commerce and dynamic multimedia applications.

B. Objectives:
By the end of the course the student will be expected to:
- Understand the basic structures of scripting, such as properties, conditional statements, repeat loops and variables
- Control animation, sound and video with scripting
- Understand the terminology and concepts of object oriented programming
- Create custom functions and objects, dynamically create movie clips & text fields
- Understand how to manage code and other project assets
- Develop an interface for dynamically loaded data, such as XML or PHP, for game design or e-commerce

C. Required Texts and/or Supplemental Material:

D. Prerequisites: MMP 100

Co-requisite: MAT 051

Basic Skills: ENG 088, ESL 062, RDG 062, MAT 010/011
E. Evaluation and Requirements of Students:

Class and homework assignment: 30%
Midterm Project: 25%
Final Project: 35%
Class performance and attendance: 10%

F. Attendance Policy

The College’s attendance policy states: “At BMCC, the maximum number of absences is limited to one more hour than the number of hours a class meets in one week. In the case of excessive absence the instructor has the option to lower the grade or assign an ‘F’ or ‘WU’ grade.”

G. Outline of Topics:

ActionScript programming
- architecture of Flash MX
- properties, movie clips
- conditionals, repeat loops
- variables
- functions, methods
- arrays

Using ActionScript to control interface elements
- animation
- drawing API
- sound
- video
- text

Object oriented programming
- definition of object oriented programming
- manipulating the built-in objects of Flash
- creating custom objects, constructor functions
- inheritance

Project management
- developing logic through pseudoCode
- managing media assets
- loading external scripts

Dynamically loaded data
- Flash xml parser
- Importing data via PHP