DMA140                              Interactive Web Animation
Course Number                       Course Title

3                                                   1 lecture/ 4 studio hours
Credits                                                   Hours: lecture/laboratory/other (specify)

Catalog description:

Introduction to two-dimensional animation using the professional software application Flash. Create short animations for the web or television and simple web games and interfaces. Teaches how to draw and animate vector graphics, import audio, create buttons and symbols and use Actionscripting to create nonlinear interactivity and animation.

Prerequisites: Basic computer literacy required.          Co-requisites: None

Is course New or Modified? New

Required texts/other materials:

Macromedia Flash 8 for Windows and Macintosh: Visual Quickstart Guide
by Katherine Ulrich
Publisher: Peachpit Press
Pub Date: December 14, 2005

There will also be a course-packet that will include articles and excerpts from other texts.

Last revised: 12/2007

Course coordinator: Sarah Sweeney, x3457, sweeneys@mccc.edu

Information resources:

- Required textbook
- Digital files from instructor’s computer
- Online tutorials
- Artist’s websites
- Computer hardware and software
- Lectures and demonstrations in class
Course goals:

The student will be able to:

- Use the major tools and commands of Macromedia Flash effectively.
- Create an animated sequence that uses vector graphics, motion or shape tweens and imported sounds to tell a story.
- Create an interactive project that changes scene, plays sounds or animates when it is used.
- Transform a story or design through the use of interactivity and animation.
- Apply the theory from other media including cinema, traditional animation, and architecture apply to their new media projects.
- Optimize a Flash project for different platforms and environments.

Course-specific General Education Core Competencies and Goals.

The student will be able to:

- B.5. Students will solve problems by applying discipline-appropriate methods and standards.
- E.1. Students will demonstrate proficiency in using major categories of computer software such as word processing, spreadsheet and presentation software.
- E.2. Students will be proficient in using an interface and managing files.
- E.3. Students will use email and communication software effectively and appropriately.
- E.4. Students will use a web browser and search engines to seek information and will recognize types of information and sources.
- E.5. Students will understand the impact of computers on society.
- 4.1. Students will demonstrate proficiency with electronic communications as appropriate to their program.
- 4.2. Students will demonstrate a working knowledge of a major domain of technological application.
- 4.3. Students will demonstrate the ability to use a particular technology or group of technologies to analyze or solve problems in general and within their academic discipline.
- 8.1. Students will recognize, analyze, and assess historical and contemporary works using accepted approaches and criteria.
- 8.2. Students will develop foundational skills using art media, music, dance, or dramatic material.
- 8.3. Students will apply skills and synthesize concepts to create and present individual performances and projects.
- 8.4. Students will assess and evaluate their work and that of their peers.
Units of study in detail.

Unit I   Frame by Frame Animation

Learning Objectives

The student will be able to...

- Create vector graphics using different drawing tools.
- Modify vector graphics using selection tools.
- Control vector graphics using groups, stacking order and alignment.
- Create and modify text.
- Describe the essential concepts of the timeline within Flash.
- Create, delete, select, copy and paste frames.
- Create keyframes and in-between frames to create motion.
- Modify the background color, stage size and frame rate of a Flash movie.
- Publish an animation.
- Identify and use the 12 Principles of Animation defined by the Walt Disney Studios.
- Analyze and respond to animations created by contemporary and historical animators.
- Conceptualize and articulate an action through motion and time.

Unit II   Tweened Animation

Learning Objectives

The student will be able to...

- Create complex drawings using layers.
- Control layers using visibility, stacking order and masking.
- Describe the essential concepts of the library and library symbols.
- Describe the differences between graphic, movie clip and button symbols.
- Create, modify and use symbols and symbol instances.
- Add, move and rename a scene.
- Create an animation using Motion Tweening.
- Create an animation using Shape Tweening.
- Control an animation using easing and motion guides.
- Create an animation within a symbol.
- Identify and use standard camera angles, frames, and movements.
- Develop a short animation that is based on a short story or fable.

Unit III   Interactive Environment

Learning Objectives

The student will be able to...

- Create an interactive button that animates when the mouse rolls over it.
- Create an interactive movie clip that animates when the mouse clicks on it.
- Describe the difference between the up, down, over and hit button states.
- Describe advantages and disadvantages of both movie clips and buttons.
- Create frame labels to guide the animation.
- Add a frame action that stops the animation or jumps to a new scene.
- Describe the different interactive states and the user’s expectations for each.
- Analyze and respond to new media projects created by influential new media artists.
- Design an interactive space that engages and responds to a user’s input.
Unit IV  Interactive Interface

Learning Objectives

The student will be able to...

- Create a slideshow that is controlled with buttons.
- Create a pre-loader using Actionscript.
- Add an action to a button that will load an external movie.
- Target an object using a frame action script.
- Identify the components of event-based Actionscripting.
- Describe the different types of navigational elements and how each effects movement.
- Design a portfolio website that shows both the work and the identity of a famous artist.

Unit IV  Final Project

Learning Objectives

The student will be able to...

- Edit, save and import sound files.
- Add a sound to a button or frame.
- Describe the difference between streaming and event based sound.
- Adjust the publish settings to prepare a movie for the web.
- Create a projector that will play on both a Macintosh and Windows platform.
- Detect which type of Flash player is loaded and redirect if it is missing.
- Export Flash to other formats.
- Conceptualize, plan and execute an advanced Flash project.
- Discuss his/her work during a critique and critically evaluate and justify his/her own artistic and vocational practice.

Evaluation of student learning:

Instructional modes to be used are Integrated lecture and laboratory, studio assignments with specifications and limitations set by the instructor, demonstrations by the instructor, and discussions and critiques of student work.

The student is responsible for his or her regular attendance, participation in classroom discussions and critiques of student work, and for including his or her work to be discussed and evaluated. Diligent work on assignments is essential.

Evaluation of progress and grades are determined by the instructor, based upon the following considerations: attendance, participation, and estimate of quality of class work and homework assignments (by instructor). Values of quality, aesthetics, etc., are based upon the instructor’s judgment of the work produced, the effort employed, and the total result achieved. The specific weight of each project is shown in the grade breakdown chart in this section.

To receive full credit, all assignments are due on time. A late assignment will be accepted one class period after due date with a reduced letter grade. After one missed class period, late assignments will receive the grade of “F”.

The grade of “A” will be earned by students who demonstrate mastery of the essential elements of the material presented, as well as demonstrating excellence in aesthetics and originality in completing course objectives with at least 90% accuracy.
The grade of “B” will be earned by students who demonstrate more than adequate mastery of the essential elements of the material presented and acceptable knowledge of the course content. Achievement will be demonstrated when all of the specific course objectives are fulfilled with at least 80% accuracy.

The grade of “C” will be earned by students who demonstrate adequate mastery of the essential elements of the material presented. Achievement will be demonstrated when all of the specific course objectives are fulfilled with at least 70% accuracy.

The grade of “D” is undesirable, but indicates a minimum passing of the course requirements. All of the course objectives must be fulfilled with at least 60% accuracy.

The grade of “F” will be earned by students who do not demonstrate achievement.

**Grade Breakdown**

<table>
<thead>
<tr>
<th>Class Attendance and Participation</th>
<th>10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project 1: Frame by Frame Animation</td>
<td>10%</td>
</tr>
<tr>
<td>Project 2: Tweened Animation</td>
<td>20%</td>
</tr>
<tr>
<td>Project 3: Interactive Environment</td>
<td>20%</td>
</tr>
<tr>
<td>Project 4: Interactive Interface</td>
<td>20%</td>
</tr>
<tr>
<td>Project 5: Final project</td>
<td>20%</td>
</tr>
</tbody>
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**Academic Integrity Statement:**

Students are expected to comply with the college-wide requirements for academic integrity. Mercer County Community College is committed to Academic Integrity—the honest, fair, and continuing pursuit of knowledge, free from fraud or deception. This implies that students are expected to be responsible for their own work. Presenting another individual’s work as one’s own and receiving excessive help from another individual will qualify as a violation of Academic Integrity. The entire policy on Academic Integrity is located in the Student handbook and is found on the college website (http://www.mccc.edu/admissions_policies_integrity.shtml).

**Academic Integrity Statement:** [Include a statement affirming the college’s Academic Integrity policy and any specific implications for the course. See http://mlink.mccc.edu/omb/0403_academic_integrity_OMB210.pdf.]