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Art (ART) 1860 Introduction to Computer Animation for Web and Multimedia (3 Units) CSU  
[formerly Art 36]

Advisory: Completion of Art 1800 or equivalent introduction to vector graphics course with a grade of 'C' or better strongly recommended

Total Hours: 32 hours lecture; 64 hours lab (96 hours total)

Catalog Description: Introduction to Macromedia Flash™ and its use in animation and Web site design. Design, creation and publication of Flash™ animations, icons, navigation buttons and Web sites. The student may opt to receive credit in either Art 1860 or Computer Science 1860, not both.

Type of Class/Course: Degree Credit/Graphic Design Certification Credit

Text: Adobe Creative Team. *Adobe Flash Professional CS5.6: Classroom in a Book*. Indianapolis, IN: Pearson Education, 2012. Print.

Additional Required Materials: Access to the World Wide Web and a Personal Computer.

Course Objectives:

By the end of the course, a successful student will be able to

1. design, create and publish Flash™ animations,
2. design and create graphical icons and navigation buttons using Flash™,
3. understand and apply CSS (Cascading Style Sheets) in Flash™,
4. design, create, program and publish a Web site using Flash™,
5. create text that contributes to effectiveness and navigational efficiency of a Web site using Flash™, and
6. discuss accessibility standards as they relate to the use of Flash™.

Course Scope & Content:

Unit I Introduction to the Software and Primary Graphical Tools

- A. Work Area Introduction
- B. Libraries
- C. The Timeline
- D. Property Inspector
- E. Tools
- F. Publishing and Publication Settings
- G. Basic Vector Shapes
- H. Strokes and Fills

- I. Text
- J. Symbols and Understanding the Difference between Basic Vector Shapes and Symbols

Unit II Develop Skills Using Flash™ Resources

- A. Animation and the Project File Concept
- B. Position
- C. Pacing and timing
- D. Transparency
- E. Filters
- F. Motion paths
- G. The Motion Editor
- H. Easing
- I. 3D motion

Unit III Advanced Techniques

- A. Articulated Motion
- B. Morphing
- C. Inverse Kinematics
- D. Joints and Armature Options
- E. Navigation and Interaction with Flash Movies
- F. Introducing ActionScript 3.0
- G. Event Handlers

Unit IV Sound and Video

- A. Using Sound
- B. Introducing Flash Video
- C. The Adobe Media Encoder and Encoding Options
- D. Playback
- E. Video Transparency
- F. Embedding Flash Video

Unit V Internal Components, External Content and Putting it All Together

- A. Introduction to Components and the Component Library
- B. Loading External Content
- C. Controlling Movie Clips
- D. Creating and Using Masks
- E. Testing before Publication
- F. The Purpose of the Bandwidth Profiler and Optimizing Flash Movies
- G. Metadata
- H. Publishing to the Web and other Venues

Lab Content, embedded in the lecture portion of the class, to include:

1. Developing skills with software tools

2. Skill development on interface between the application software and the computer operating system
3. Developing their skills using the application software to design, create and publish digital media

Learning Activities Required Outside of Class:

Students will be challenged to spend a minimum of 10 hours outside of regular class time doing the following:

1. Reading assigned text
2. Studying for quizzes and exams
3. Researching examples of professionally produced Flash™ movies (available on the Web)

Methods of Instruction:

1. Lecture and demonstrations by instructor
2. Class discussion on current topics
3. Team oriented project development (computer lab)
4. Individual project development (computer lab)

Methods of Evaluation:

1. Student participation in class discussions
2. Objective quizzes and examinations
3. Individually produced Flash™ projects (movie components) and completed Flash™ movie