Objective
Students will acquire skills and knowledge of web animation and interactivity using Adobe Flash CS3 in the process of building their own Flash projects. Students will learn to control applications and web sites with Action Script, and will study proper script syntax, logic, controlling targeted objects and timelines, as well as video preparation and encoding techniques for deployment through Flash, such as websites and banner ads. Students are also exposed to digital design and media concepts including color space, typography, vectors and bitmaps, audio and video encoding and compression, CSS and XML.

Concepts
Major concepts covered are the use of Adobe Flash for web animation, video and audio and scripting to create rich, web-based experiences. Topics include an overview of vector-based drawing tools, animation techniques, and interactive symbol functions, as well as a thorough grounding in powerful web animation and development tools such as Flash CS3 and Flash Action Script. Students will learn to set variables and properties of symbols, create complex interactivity in web projects, and explore more advanced features of web design, layout and publishing along with dynamic content loading.

Instructor
Lance S. Winkel

Contacting the Instructor
Office: OHE 530 H
E-mail: winkel@usc.edu
Tel: 213.740.9956

Office Hours
Thursdays, 2-3pm and 5-7pm OHE 530 H or by appointment

Lecture/Lab
3 hours / week. Lecture and lab are combined

Course Structure
The course material will be structured around a series of projects. Each project will extend over several weeks with assignments / progress checks due each week. See the Grading criteria below.

The anticipated Course Outline contains a weekly breakdown of the lecture material and assignment due dates.

Required Textbooks
Invest in one of the Recommended Textbooks and/or Learning Resources!

Recommended Textbooks / Learning Resources
Online tutorials both Free and Purchasable from Cartoonsmart.com
Adobe Flash CS4 Professional Classroom in a Book (Paperback)
Adobe Press (ISBN: 978-0-321-57382-7) (Amazon $34.64)

Adobe Flash Professional CS5 Classroom in a Book (Paperback)
Adobe Press (ISBN: 978-0321701800)(Amazon $34.64)

Foundation Flash CS3 for Designers (Paperback)
Note: Assigned readings marked with (*) are sited from this book!

Web Site  Class materials are posted on the USC Blackboard website.
https://blackboard.usc.edu/

Grading  Eight weekly progress checks = 3 points each (24 total)
Bouncing Ball Project = 5 points
Adv. Bouncing Ball / Crashing Object = 10 points
Character Animation = 10 points
Animated Greeting Card = 10 points
Web Advertisement = 10 points
Image Gallery = 5 points
Final Project = 25 points
Attendance and Participation = 1 point free (-1 point / hour absent)
Total = 100 points

Grading percentages:
A  100-93
A-  92-90
B+  89-87
B   86-83
B-  82-80
C+  79-77
C   76-73
C-  72-70
D+  69-67
D   66-65
F   64 or below

Policies  Attendance: The course content and projects are so closely tied
together; excessive absences will severely and negatively affect the
learning process. Any student who misses three or more classes will fail the course.

Projects: All projects and weekly assignments are due at the start of class
and are considered late ½ hour after class begins. Only one project or
assignment may be turned in late. All other late projects will NOT be
accepted unless pre-approved by the instructor. With the instructor's
approval, on time projects may be redone for additional credit but must
be turned in by the following class session. The final project may not be
turned in late.

Before logging off a computer, students must ensure that they have
emailed or saved projects created during the class or lab session. Any
work saved to the computer will erased after restarting the computer. ITP is not responsible for any work lost.

ITP offers Open Lab use for all students enrolled in ITP classes. These open labs are held beginning the second week of classes through the last week of classes. Please contact your instructor for specific times and days for the current semester.

**Academic Integrity**

The use of unauthorized material, communication with fellow students during an examination, attempting to benefit from the work of another student, and similar behavior that defeats the intent of an examination or other class work is unacceptable to the University. It is often difficult to distinguish between a culpable act and inadvertent behavior resulting from the nervous tension accompanying examinations. When the professor determines that a violation has occurred, appropriate action, as determined by the instructor, will be taken.

Although working together is encouraged, all work claimed as yours must in fact be your own effort. Students who plagiarize the work of other students will receive zero points and possibly be referred to Student Judicial Affairs and Community Standards (SJACS).

All students should read, understand, and abide by the University Student Conduct Code listed in SCampus, and available at: [http://www.usc.edu/student-affairs/SJACS/nonacademicreview.html](http://www.usc.edu/student-affairs/SJACS/nonacademicreview.html)

**Students with Disabilities**

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to your TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m. - 5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.
Course Outline

Week 1 – Introduction (August 25)
- Review the syllabus
- Welcome to Flash
- The Flash GUI Interface
- Tools, Panels, Stage, and Timeline menus
- Introduction to animation
- The Flash animation workflow
- Setting and working with keyframes

Reading: Chapter 1: Learning Flash CS3 Professional *
Project: Basic Bouncing Ball: Create a simple sphere and use layers, the timeline, simple tweening and easing to create an animation of a ball bouncing through a scene. Finished project due Week 2.

Week 2 – Building an Animated Scene (September 1)
- Shapes and Color
- Color and Swatches
- Gradients and the Gradient Transform Tool
- Shape Tweens

Reading: Chapter 2: Graphics in Flash CS3 *
Project: Adv. Bouncing Ball / Crashing Object (Week 1 of 2): Begin creating an improved animation that depicts a bouncing sphere or crashing object traveling through space and coming to rest. Use gradients to add dimensionality to the crashing. Utilize shapes, color, and layers to add an environment, simulated ground plane, and a sophisticated level of style to the scene. Make sure that the sphere demonstrates squash and stretch or deformation as it impacts with the ground and easing to emphasize weight. Progress check due Week 3.
Week 3 – Adding Effects to an Animated Scene (September 8)
- Symbols and the Library
- Motion Tweens
- Working with symbols in animation
- Symbol properties (Color and blending modes)
- Masks
- Basic and advanced clipboard functions in the flash interface

**Reading:** Chapter 2: Graphics in Flash CS3 *

**Project:** Adv. Bouncing Ball / Crashing Object (Week 2 of 2): Use symbols, masks, alpha, and other tools and properties as necessary to add a simulated reflection and drop shadow to the animation. Complete the flash animation. Finished project due Week 4.

Week 4 – Importing Bitmaps and Image Assets (September 15)
- Bitmaps
- Importing from Illustrator

**Reading:** Chapter 2: Graphics in Flash CS3 *

**Project:** Character Animation (Week 1 of 3): Develop a concept for a character animation featuring a character that will run, walk, and/or interact with an object in a simple scene. Using this concept as a guide; draw, create, or import image assets that represent the character's body, head, limbs, and other movable parts. These will be setup and used in subsequent weeks as the basis for a character movement. Progress check due Week 5.

Week 5 – Character Animation (September 22)
- Principles of a walk/run cycle
- Animation and cycling animation
- Character animation setup and workflow
- Inverse Kinematic (IK) options
- More Helpful Features

**Reading:** Chapter 3: Symbols and Libraries *

**Project:** Character Animation (Week 2 of 3): Make sure all character assets are converted into separate symbols, are clean, and ready to be animated. Import the asset symbols into a single animation layer for the character. Begin animating the separate pieces of the character. Progress check due Week 6.

Week 6 – Adding Complexity to Character Animation (September 29)
- Adding complexity to animation
- Repeating vs. non-repeating cycles
- Secondary animation
- Weight and timing

**Reading:** Character Animation (Week 3 of 3): Finished project due Week 7.
**Week 7 – Text & Fonts (October 6)**
- Working with Text
- Understanding system vs. non-system fonts and font embedding

**Reading:**  Chapter 6: Text in Flash *

**Project:**  Animated Greeting Card (Week 1 of 2): Create an animated Greeting Card using graphics and text. Progress check due Week 8.

**Week 8 – Sound (October 13)**
- Methods for creating and acquiring sound and music files
- Importing and working with sound files in flash

**Reading:**  Chapter 5: Audio in Flash CS3 *

**Project:**  Greeting Card (Week 2 of 2): Finish animating the text and graphic assets. Add rolling patterns and details as necessary to embellish the Greeting Card. Incorporate sound to complete the project. Finished project due Week 9.

**Week 9 – The Basics of Interactivity (October 20)**
- Review Greeting Card Projects
- Embedding Flash into web content
- Adding interactivity to Flash content
- Brainstorming a concept

**Reading:**  Chapter 4: ActionScript Basics *

**Project:**  Web Advertisement (Week 1 of 3): Plan out a design for an Interactive Flash based web banner advertisement. Build and gather the assets for the project. Concept designs and progress checks due Week 10.

**Week 10 – Special Effects (October 27)**
- Advanced Symbols
- Filters and Effects
- Duplicating and Swapping Symbols

**Reading:**  Chapter 13: Optimizing Flash Movies *

**Project:**  Web Advertisement (Week 2 of 3): Use all of your Flash animation experience to date to create a clean and dynamic banner advertisement. The ad should have at least one graphic element that repeats through an animation cycle. Use moving text and graphics to clearly communicate the message to the viewer. Progress check due Week 11.
**Week 11** – Video (November 3)
- Importing and embedding Flash video content into websites.
- Working with video in Flash
- Building Flash content into a website
- Basic of Dreamweaver

**Reading:** Chapter 14: Publishing Flash Movies *
Chapter 8: Video in Flash *

**Project:** Web Advertisement (Week 3 of 3) Finish the project. Finish any remaining features of the ad making sure that it has some interactivity to take the viewer to a destination website. Also, in order to view the banner ad in its intended state, build a simple web page in Dreamweaver and import the Flash .swf file into the page as though it were incorporated into a real website. You will be turning in both the Flash source files and the Web Site. Finished projects are due Week 12.

**Week 12** – XML (November 10)
- Material Covered

**Reading:** Chapter 11: Dynamic Data (XML) and Flash *

**Project:** Contact Information Page: Build an Image Gallery

**Week 13** – Building a Website (November 17)
- Using the timeline to navigate a web page
- Animating transitions between page content

**Reading:** Any assigned readings

**Project:** Final Project – Interactive Flash Website and Gallery. More details will be given out in class. Final Project concepts and initial assets due for review and initial critique Week 14.

**Week 14** – CSS (November 24)
- Material Covered

**Reading:** Chapter 10: CSS and Flash *

**Project:** Final Project progress check Week 15

**Week 15** – Special Topics (December 1)
- Material Covered

**Reading:** Any assigned readings

**Project:** Complete Final Project – Due during Final Exam Session!

**Week 16** – Final – December 8, 4:30-6:30pm, KAP 107
Final projects must be submitted onto Blackboard by 5:30pm.
In class review and critique of Final Projects will follow.