

Objective Students will acquire skills and knowledge to design and develop online applications powered by the cutting edge Adobe Flash 9 player. Content will be authored using Adobe Flex 2 for client-side development and PHP for server-side development.

Concepts Major concepts covered are web application design, development, and deployment. Topics include the proper usage of Flex 2 components, creating custom components, and user interface design techniques. The final project will be a scalable fully functional online application.

Prerequisite None

Recommended Preparation Basic computer knowledge, use of some multimedia tools (e.g., Photoshop, Fireworks, Illustrator, AfterEffects, Dreamweaver, etc), and familiarity with general programming concepts.

Lecture 1.5 hrs/week

Lab 1.5 hr/week

Attendance 14% of the student's grade is based on attendance. Students will receive 1 point (out of 100) for each session they attend.

Textbooks *Title: TBD*

This text is **required**.

Web Site **Class website**

Students are expected to check the website for updates regularly, at least once weekly beginning week 3. It is the responsibility of all students to be aware of all information and assignments posted on the class website.

Class Website: <http://blackboard.usc.edu>

Help Forum

LA Flash runs a free help forum. For free limited help and assistance at any time, just post your questions. Sometimes questions get answered quickly, sometimes slowly, and sometimes not at all. But I also encourage all of you to participate and answer your classmates' questions if you can help. Students who actively participate on the help forum during the course will qualify for extra credit points.

<http://www.laflash.org/forum/forumdisplay.php?f=4>

(create a free LA Flash account to post)

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| Midterm | There will be a midterm exam on week 8. The exam will only take up a portion of the class. We will also have a lecture that day, but no lab. More information on the midterm will be made available before the exam date. |
| Projects and the Final Project: | <p>There is no final exam. In its place, students will submit a final project. This final project will be to create one of the following;</p> <ul style="list-style-type: none"> • Online Store w/ Item Browser • Online Video Player w/ VideoClip Browser • Online Experimental Data-Navigator <p>During the course we will complete an example of these three so there will be an opportunity to learn the basics of each and students will have models to work from.</p> |
| Project Submission | <p>All project submissions should be ZIP'd (compressed into a zip file) and named:</p> <ul style="list-style-type: none"> • project#_lastName_firstName_year_month_day.zip <p>So, if I submitted project two on January 9th, 2007, I would name my zip file:</p> <ul style="list-style-type: none"> • project2_rivello_samuel_2007_01_09.zip <p>Then, FTP your zip file by 11:59:00 PM of the date specified in the assignment. Due dates are always Thursdays.</p> <p>Project Upload: http://blackboard.usc.edu</p> |
| Grading | <p>The following point structure will be used in determining the grade for the course. Final grades will be based upon the total points received.</p> <p>Extra Credit:</p> <p>Active participation on the LA Flash Help Forum will qualify you for up to 10 extra points, at the instructor's discretion.</p> |
| Policies | <p><i>Make-up policy for exams:</i> To make up for a missed exam, the student must provide a satisfactory reason (as determined by the instructor) along with proper documentation. Make-up exams are only allowed under extraordinary circumstances.</p> <p><i>Projects:</i> It is the student's responsibility to turn in lab projects on or before deadlines as set by the instructor.</p> <p><i>Late Projects:</i> Projects submitted late will be discounted 5 points each day the submission is late (out of 15). Contact the instructor in advance for extensions in special circumstances.</p> |
| Academic Integrity | <p>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 instructor determines a violation has occurred, appropriate action, as determined by the instructor, will be taken.</p> <p>Though working together is encouraged, the projects must be your own effort. "Duplicate" projects will all receive zero points and possible referral to the Office for Student Conduct.</p> <p>All students should read, understand and abide by the University Student Conduct Code http://www.usc.edu/dept/publications/SCAMPUS/governance/gov03.html</p> |
| Students with Disabilities | <p>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.</p> |

Contacting the Instructor You may contact the instructor 24 hours a day by email. In emergencies, you may contact the instructor by phone during business hours.

Contacting the Instructor through Blackboard or Instructor Email is recommended.
Instructor Phone (Emergencies Only): 310-306-1436

Grades & Project Summary

Grades

Project assignments will be distributed to students in advance of each due date, including detailing assignment information and grading criteria. Projects are due **by 11:59:00 PM** of the date specified.

| Project | Description | Delivery | Grade Points | Due |
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| Assignment 1 | LAFLASH.org registration / post | Blackboard | 1 | 2/1/07 |
| Assignment 2 | Choose Final Project | Blackboard | 1 | 2/15/07 |
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| Midterm | In Class Test | In Class | 14 | 2/27/07 |
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| Project Deliverable 1 | Wireframes + Project Specification | Blackboard | 8 | 3/8/07 |
| Project Deliverable 2 | Complete Project Designs | Blackboard | 8 | 3/22/07 |
| Project Deliverable 3a | Project BETA | Blackboard | 14 | 4/12/07 |
| Project Deliverable 3b | Group Critique of Project BETA | In Class | 0 | 4/17/07 |
| Project Deliverable 4 | Final Project Submission | Blackboard | 40 | 4/26/07 |
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| Attendance | 1 PT Per class | In Class | 14 | NA |
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| | | | TOTAL 100 | |

Project Summary

Your term project is to be an Online Store w/ Item Browser, an Online Video Player w/ VideoClip Browser, or an Online Experimental Data-Navigator. It is to be delivered as a fully functioning RIA via http:// URL.

All Projects Must...

- Be submitted as an http:// URL, & ZIP containing all source
- Perform at 24 Frames per second
- Be 640x480 dimensions or larger
- Include a built-in or custom preloader
- Include at least one transition, effect
- Include run-time CSS visual styling
- Operate smoothly without any 'bugs'
- Include online interactivity through Flash Remoting or HTTPService

Course Lecture, Lab and Reading Summary

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| Week 1 | | |
| | Title: | Introduction to Application Design and Development |
| | Lab: | Deconstructing Rich Internet Applications |
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| Week 2 | | |
| | Title: | Flex 2 & Flex Builder 2 Fundamentals |
| | Lab: | Creating your first "Hello World" Rich Internet Application |
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| Week 3 | | |
| | Title: | Layout Components |
| | Lab: | Designing Rich UI's |
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| Week 4 | | |
| | Title: | UI Control Components |
| | Lab: | Developing Rich UI's |
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| Week 5 | | |
| | Title: | User Interface Design |
| | Lab: | User Interface Considerations in Use |
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| Week 6 | | |
| | Title: | Event Dispatching & Listening |
| | Lab: | Creating Custom Event Models |
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| Week 7 | | |
| | Title: | Customization with Effects, Transitions, and Tweens |
| | Lab: | Adding Effects to your User Interface |
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| Week 8 | | |
| | Title: | Advanced Component Programming: MXML |
| | Lab: | Navigating the MXML – AS3 Divide: How to Best Model Your Applications |
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| | MIDTERM: | In Class Exam Covering ALL from Session 1 through Session 7 |
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| Week 9 | | |
| | Title: | Advanced OOP Programming: ActionScript 3.0 |
| | Lab: | Encapsulation, Modularity, & Polymorphism in Use |
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| Week 10 | | |
| | Title: | Advanced Server-side Integration: PHP & Flash Remoting |
| | Lab: | Creating a "Hello World" RIA with Flash Remoting Connectivity |
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| Week 11 | | |
| | Title: | FutureScope: Where Next with The Flash Platform? |
| | Lab: | None |
| | Guest Lecturers | Professions of RIA Development to Speak |
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| Week 12 | | |
| | Title: | Advanced Visual Programming: CSS |
| | Lab: | Visual Styling with Flex 2 |
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| Week 13 | | |
| | Title: | Advanced Design Patterns: Model-View-Controller-Service |
| | Lab: | Creating your first MVCS Rich Internet Application |
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| Week 14 | | |
| | Title: | Application Deployment & the Flex Security Model |
| | Lab: | Deploying your MVCS Online |
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| Week 15 | | |
| | Title: | Group Critique of Final Project BETA |
| | Lab: | None |
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| | Group Critique: | Present your Final Project BETA to the group for critique |
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| Week 16 | | |
| | Title: | TBD |
| | Lab: | TBD |
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