Objective
This course is intended to teach the basic programming tools and development techniques need to create interactive Web objects and pages.

The class will stress programming and scripting fundamentals, how to use a visual studio (Dreamweaver) to create programmed interactivity and animation, how to hand-code scripting, and will provide an introduction to scripting in a multimedia language (Flash).

Concepts
Fundamentals of scripting and object-oriented programming, Javascript, Style Sheets, Dynamic HTML and Layers, beginning Flash.

Prerequisite
ITP104x

Lecture
3 hrs/week

Lab
3 hrs/week

Textbook
1. JavaScript Bible by Danny Goodman, IDG Books

Grading
The following point-structure will be used in determining the grade for the course. Final grade will be based upon the total points received, the highest total in the class, and the average of the class.

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes, Assignments, and Projects</td>
<td>30%</td>
</tr>
<tr>
<td>Class Participation, Attendance, and Labs</td>
<td>15%</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>20%</td>
</tr>
<tr>
<td>Final Project</td>
<td>35%</td>
</tr>
</tbody>
</table>

Final course marks are determined by standard formulas:

- **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% - 63%
- **F** 62% and below

Policies
Students are expected to:
- Attend and participate in lecture discussions and critiques
• Attend and complete all applicable weekly quizzes, labs, assignments and projects
• Manage and complete individual class projects

Students are responsible for completing assignments and projects by stated deadlines. Most assignments will be uploaded by students to their USC Web space and linked from a class assignment page.

It is the responsibility of the student to make sure projects and assignment are turned in on time. Make sure you follow the procedures outlined in each assignment or project. Each student will maintain their own assignment page with links to all completed work in the course.

Late projects will be credited for HALF of the total points. No projects will be accepted later than one week from the due date. It is the responsibility of the student to contact the grader when posting late projects.

**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

**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.
Interactive Web Development
ITP 301x (4 Units)

Course Outline

Week 1 - Overview of the course; Object-Oriented Programming
- Course overview
- Introduction to Dreamweaver visual environment
  Reading: Dreamweaver Chapters 3, 4, 6, 9
  Project: Class page

Week 2 – JavaScript Programming Fundamentals
- Introduction to scripting languages
- Basics of object-oriented programming
- Implementing Javascript in Dreamweaver
  Reading: Dreamweaver Chapters 13, 17
  Project: Behaviors Web page

Week 3 – Styles, Layers and DHTML
- Review of HTML Styles and Layers
- Dynamic HTML concepts
- Dreamweaver Timelines
  Reading: Dreamweaver Chapter 10
  Project: Alternate stylesheets Web pages; Animated layers Web page

Week 4 – Scripting DHTML; Introduction to Javascript, DOM
- Intermediate Dreamweaver DHTML components
- Domain Object Model
- Introduction to Javascript language
  Reading: Bible Chapters 1 - 3
  Project: Javascript Object research

Week 5 – Variables, Expressions, Conditional Logic, Loops
- Variables
- Expressions
- Operators
- Conditional Logic
- Loops
- Discussion of Project #2: Modification of the Second Javascript exercise
  Reading: Bible Chapters 5, 6
  Assignment: Basic Javascript exercises
  Project: Three Javascript Routines
Week 6 – Arrays; Dynamic Documents
- Arrays and array loops
- CharAt and indexOf
- This
- Creating basic dynamic pages
  Reading: Bible Chapters 9, 10, 16, 23, 34, 37
  Assignment: Password check Web page
  Project: Array-generated, dynamic Web page

Week 7 – Data Validation; Window and Document Objects
- Basic data validation functions
- Using replace and substring methods
- Regular expressions
- Window and document objects
  Reading: Bible Chapters 38, 43
  Assignment: Re-structuring data on Web page; Window Opener Web page

Week 8 – Scripting DHTML with Javascript; Cross-Browser DHTML
- Scripting with CSS, DOM and Layers
- Cross-browser DOM problems and issues
- Basic browser-check routines and techniques
- Using Eval
  Reading: Bible Chapter 41
  Assignment: Layer manipulation Web page
  Project: Javascript DHTML layers Web page

Week 9 – DHTML animation; Scripting Frames
- Scripting DHTML layer animation
- Scripting document and other object changes between multiple frames
- Intermediate techniques in creating dynamic documents
  Reading: Bible Chapter 11
  Project: Scripting of Web pages across multiple frames

Week 10 – Javascript Review; IE Filters and Transitions; Cookies
- Javascript review
- Overview of Internet Explorer Filters and Transitions
- Fundamentals of cookie structure and scripting
  Reading: Bible Chapter 43, 44 +
  DHTML book: Units I and J
  Assignment: Practice Midterm

Week 11 – Written and Practical Javascript Examinations
  Assignment: Flash exercises

Week 12 – Introduction to Flash and ActionScripting
  - Introduction to Flash development environment
- Basics of Flash scripting
- Actions
- Movieclips and Buttons

**Reading:** Flash handouts

**Week 13** – Scripting Flash Objects; Detecting User Interaction
- Scripting Buttons, MovieClips
- Flash variables and conditional structures
- Scripting new objects

**Project:** Flash loading page

**Week 14** – User Data; Dynamic Flash Animations
- Manipulating variables and user input
- Scripting dynamic Flash animations

**Project:** Group research and implementation of custom Javascript routines

**Week 15** – Javascript Group Projects
- Group presentation of Javascript routines
- Introduction to server-side and other Web development technologies

**Week 16** – FINAL PROJECTS DUE