

The Art Institute of Atlanta

IMD 210 Fundamentals of Scripting Languages

Section A Spring 2005
Course Outline

Table of Contents

<i>COURSE DESCRIPTION</i>	3
Credits	3
Prerequisite	3
<i>OBJECTIVES</i>	3
<i>COURSE INFORMATION</i>	3
Textbooks	3
Supplemental Materials	3
Technology	4
Course Online	4
Room/time	4
Instructor	4
<i>COURSE GRADING</i>	4
Quizzes & Exams	4
Extra Credit	4
Grading Scale	4
Submitting Assignments	5
Web Server	5
Late Assignments	5
Exams and Quizzes	5
Grading Policy	5
Course Attendance Policy	5
Attendance Appeals Process	6
<i>ACADEMIC HONESTY</i>	6
<i>DISCLAIMER</i>	6
<i>SCHEDULE</i>	7
<i>STUDY QUESTIONS</i>	9
Week 2 Study Questions	9
Week 3 Study Questions and Readings	9
Week 4 Study Questions and Readings	9
Week 6 Study Questions and Readings	10

Week 7 Study Questions and Readings.....	10
Week 8 Study Questions and Readings.....	10
<i>ASSIGNMENTS</i>	<i>11</i>
Assignment 1. Course Weblog.....	11
Assignment 2 CSS Layout.....	11
Assignment 3. Site Redesign 1	11
Assignment 4. Site Redesign 2	11
<i>EXTRA CREDIT</i>	<i>12</i>
Extra Credit 1. CSS Tutorial.....	12
Extra Credit 2. Dynamic CSS.....	12

Please note: The contents of this course outline may be revised by the instructor during the quarter. The changes may be made to improve and facilitate the students' achievement of the competencies for the course.

IMD 210 Fundamentals of Scripting Languages

Section A

Course Outline, Spring 2005

COURSE DESCRIPTION

Students develop basic programming concepts and skills and combine them with interface design skills. The course emphasizes integrating programming concepts with interface design for a client-side environment

Credits

4 Credits, 6 Hours

Prerequisite

IMD 110 Interactive Design Concepts

OBJECTIVES

Upon completion of this course, you should be able to:

- Discuss the pros and cons of W3C standards in relation to XHTML and CSS
- Explain the concept(s) behind the separation of content structure from content presentation.
- Define and explain the concept of the Document Object Model.
- Discuss the relationship of the Document Object Model to XHTML, CSS, and JavaScript
- Redesign existing websites to adhere to W3C web standards
- Define and discuss absolute, relative, static, and fixed positioning methods
- Define and discuss the "Box Model" and its relationship to CSS layout techniques.
- Demonstrate proficiency writing CSS for web page layout and design
- Explain browser compatibility issues related to CSS
- Locate online information sources on accessibility
- Apply web accessibility guidelines when developing web sites
- Describe basic programming process
- Recognize basic programming concepts
- Demonstrate understanding of programming language syntax rules
- Demonstrate understanding of statements, data type, variables, operators, and expressions.
- Demonstrate understanding of conditional branching and repeat loops
- Demonstrate use of commenting code
- Perform programming fundamentals (loops, variables, conditionals) using JavaScript
- Apply JavaScript to XHTML pages to: open customized browser windows, detect form fields for valid data entry, and create rollover effects to provide user feedback. Define the acronym DHTML
- Demonstrate the use of color, contrast, size, position, type and proximity to facilitate successful visual communication

COURSE INFORMATION

Textbooks

- Shafer, Dan.(2003).*HTML Utopia:Designing Without Tables Using CSS*. SitePoint. ISBN: 0-9579218-2-9
- Schmitt, Christopher. (2004). *CSS Cookbook*. O'Reilly. ISBN: 0-596-00576-8 (optional)
- Moncur, Michael. (2000). *Sams Teach Yourself JavaScript in 24 Hours*. ISBN: 0-672-32025-8

Supplemental Materials

Blank CD-R's, thumb drive, or portable hard drive for file storage. You will need a web account (server space) to upload assignments. If you do not have an account, please contact the service bureau on 2nd floor.

Technology

Internet connectivity, Scanner, Adobe Photoshop, HTML editing software, FTP application.

Course Online

<http://www.classbot.com/>

Room/time

	Day/Time	Room
Class:	Thurs 8:00-9:50 PM	320
Lab:	Wed 6-9:50 PM	216

Instructor

Name:	Aarron Walter
Phone:	770-689-5006
Email:	aarron@classbot.com
Office hours:	Mon. 4-6 PM Thurs. 4-6 PM Room 217

COURSE GRADING

The final grade will be based on the following scheduled activities:

Activity / Assignment	Title	Points	%
Assignment 1	Course Weblog	100	10
Assignment 2	CSS Layout	100	10
Assignment 3	Site Redesign 1	200	20
Assignment 4	Site Redesign 2	200	20

Quizzes & Exams

Weekly Quizzes		100	10
Final Exam		150	15
Midterm Exam		150	15

Extra Credit

Extra Credit 1	Dynamic Style Sheets	10	+1
Extra Credit 2	CSS Tutorial Site	10	+1

Grading Scale

%	Grade	%	Grade	%	Grade	%	Grade
96-100	A	86-89	B+	76-79	C+	=< 69	F
90-95	A-	83-85	B	73-75	C		
		80-82	B-	70-72	C-		

Submitting Assignments

Every student will create a personal online “jump” page for this class. The URL for this page should be posted in the Class Bot drop box by the specified deadline.

All assignments need to be uploaded to a web server by the stipulated time/date and linked from your personal “jump” page. Each student’s jump page must have the following information on it:

- Your Name
- Course number, name and section
- Instructor’s name
- Assignment titles
- Your email contact link.
- Links to all assignments (typically the assignment title)

Web Server

Please note that all your assignments need to be submitted online. ***You may use the student server (5MB free) or your own server space so long as it is not a free server such as Free Webs, Geo Cities, Angel Fire, etc. Any assignments submitted on a free server will not be accepted.***

Late Assignments

If an assignment cannot be accessed online on the due date, it will not be graded, resulting in a 0 for the assignment. If an assignment is not received on time, it cannot be resubmitted.

Exams and Quizzes

The midterm and the final exams must be taken at the scheduled time/date. Failure to appear for these exams will result in a score of ‘0’ for the corresponding test. Similarly, if you are absent or late on the day of a quiz, you will not be able to take the quiz and will receive a “0” for the corresponding quiz.

Grading Policy

Please note that per the department policy, in order to take the portfolio class and graduate, all students in the Interactive Media Design program need to have a grade of C or higher in all core courses (courses beginning with IMD).

It is the goal of this policy to improve the academic performance of students in the classroom by stressing the importance of course attendance and reinforcing the work-ready expectations of employers for employee attendance.

Students should be prepared to start the quarter the first day of classes and to drop/add courses early in the first week of the quarter to minimize absences.

The following attendance requirements are in addition to and amend those currently published in the AIA Student Handbook and Daily Planner.

Course Attendance Policy

- Students are required to attend all class meetings, to arrive on time, and to stay for the full duration of the class.
- Students arriving 20 minutes after the start of each class will be marked absent. Students who leave class before the class is over and without the approval of the instructor will be marked absent.
- Students who accumulate more than three absences may be dropped from the course and a grade of “FS,” Fail/Suspension, will be recorded for the course. Students who are suspended receive no refund for the course.

There are no excused absences. Students may verify their attendance with the instructor of the course. In the event a student is suspended from a course and believes an error in recording attendance has been made, he or she should first contact the instructor.

Attendance Appeals Process

Students may appeal a course suspension. Such appeals must be made in writing to the Registrar. Appeals will only be considered when the absences were beyond the control of the student and **all** absences are fully documented.

ACADEMIC HONESTY

As a member of the academic community, students are expected to recognize and uphold standards of intellectual and academic integrity. Under all circumstances, students are expected to be honest in their dealings with faculty, administrative staff, and fellow students. In speaking with any member of the college community, students must give an accurate representation of the facts at hand. Students are required to refrain from any and all forms of dishonorable or unethical conduct related to academic work. In class assignments, students must submit work that fairly and accurately reflects their level of accomplishment. Any work that is not the product of the student's own efforts is considered dishonest. Engaging in academic dishonesty can have serious consequences for the students. Academic dishonesty includes, but is not limited to, the following:

- Cheating
- Plagiarism
- Submission of the same work in two or more classes without prior approval of the course faculty involved.
- Submission of any work (full or partial) not actually produced by the student.
- Submission of any work without clear acknowledgement (reference/credit) of the original author or creator of work.

Students proven to have been dishonest in submitting or presenting their work in this class will receive the F (fail) grade for the class. Record of this incident will also be kept in the student's file. If such an incidence occurs and you would like to file a written appeal, you may do so with the academic director of the department.

DISCLAIMER

All work designed and developed in this class should carry the following statement (typically displayed at the bottom of the page):

This interactive media project was created by students for educational purposes at The Art Institute of Atlanta and is in no way intended for commercial gain or as a source of public information.

SCHEDULE

Date		Reading to be Completed Before Class	Assignments Due	Topic/Activity
Wed. 4/6 (wk 1)	Lab			Create course blog. CSS Review
Thurs. 4/7 (wk 1)	Class	http://www.macromedia.com/devnet/contribute/articles/hakon_lie_interview.html		Putting CSS into Perspective CSS: the separation of content structure from content presentation.
Wed. 4/13 (wk 2)	Lab		Assignment 1: Course Web Log	CSS positioning techniques. Create a CSS-only layout.
Thurs. 4/14 (wk 2)	Class	<i>Designing Without Tables Using CSS</i> Ch. 4: CSS Website Design Ch.5: Building the Skeleton		The Box Model Box properties CSS Positioning: Static, Relative, Absolute, and Fixed.
Wed. 4/20 (wk 3)	Lab			Examining CSS Zen Garden mark-up. Converting table layout to CSS-based layout.
Thurs. 4/21 (wk 3)	Class	<i>Designing Without Tables Using CSS</i> Ch. 6: Putting Things in Their Place http://www.positioniseverything.net/articles/flow-pos.html http://www.positioniseverything.net/articles/float-theory.html		Advanced CSS positioning concepts.
Wed. 4/27 (wk 4)	Lab	http://www.sitepoint.com/article/browser-specific-css-hacks		CSS menu systems using list elements
Thurs. 4/28 (wk 4)	Class	<i>CSS Cookbook</i> Ch. 9: Hacks and Workarounds http://www.positioniseverything.net/articles/doctypes.html http://www.positioniseverything.net/articles/box-model.html		Midterm review Examining CSS browser bugs and current solutions. The Box Model Hacks
Wed. 5/4 (wk 5)	Lab		Assignment 2. CSS Layout	CSS Zen Garden show and tell Introduction to Redesign 1 assignment Commence planning, designing and production of Redesign 1 assignment

Date		Reading to be Completed Before Class	Assignments Due	Topic/Activity
Thurs. 5/5 (wk 5)	Class			Midterm Exam
Wed. 5/11 (wk 6)	Lab			CSS design techniques
Thurs. 5/12 (wk 6)	Class	<i>Designing Without Tables Using CSS</i> Ch. 8: Making Fonts Consistent Ch. 9: Text Effects and the Cascade.		How CSS deals with fonts Text properties and effects
Wed. 5/18 (wk 7)	Lab		Assignment 3: Redesign 1	Presentations of redesign site Rollovers and transparent PNG's Using youngpup.net script libraries. Manipulating windows
Thurs. 5/19 (wk 7)	Class	<i>Sams Teach Yourself JavaScript</i> Ch. 1: Understanding JavaScript Ch.4: How JavaScript Programs Work Ch.10: Working with the Document Object Model Ch. 12: Responding to Events		Pseudo-code Program flow diagrams JavaScript "dot" syntax (Math vs. logical operators)
Wed. 5/25 (wk 8)	Lab			Browser detection Form validation Browser windows
Thurs. 5/26 (wk 8)	Class	<i>Sams Teach Yourself JavaScript</i> Ch. 5: Using Variables and Functions Ch.6: Using Strings and Arrays Ch.7: Testing and Comparing Values Ch. 13: Using Windows and Frames		Strings Conditionals (if...else) Local & global variables (scoping) Arrays Review for Final Exam
Wed. 6/1 (wk 9)	Lab			Work on Redesign 2
Thurs. 6/2 (wk 9)	Class			"Show and Tell" current progress on final assignment.
Wed. 6/8 (wk 10)	Lab		Assignment 4: Redesign 2	Presentation of final redesign assignment.
Thurs. 6/9 (wk 10)	Class			Final Exam

STUDY QUESTIONS

Week 2 Study Questions

1. What are the five main rules in writing well structured XHTML
2. Why is it important to separate content from presentation?
3. Why is it important to validate our mark-up & CSS?
4. What are the two major parts of a CSS rule?
5. Define these tags: th, thead, tbody, caption.
6. Define these CSS properties: float, margin, padding, and border.
7. Define these CSS properties: font-family, font-size, line-height, letter-spacing.
8. What is the “Box Model?”
9. What is the difference between a CSS class and an ID?
10. What is the difference between a DIV and a SPAN?
11. How does the term “Cascade” relate to the conflicts in CSS rules?
12. What is the purpose of the Document Type Declaration?
13. What is the difference between a browser’s “quirks” mode and it’s “standards” model?
14. Define inline, embedded, and external (aka. Local, global, and linked) Stylesheets?

Additional Resources

- o <http://www.nysl.org/styleguide/>
- o <http://www.alistapart.com/stories/betterliving/>
- o <http://www.blooberry.com/indexdot/css/propindex/all.htm>

Week 3 Study Questions and Readings

15. Who is Jeffery Zeldman, and why is he so well known?
16. What is z-index and how is it used?
17. How does the float property work?
18. Explain absolute positioning.
19. Explain relative positioning
20. Explain fixed positioning
21. What effect does margin, border, and padding have on an element’s width?
22. Draw a diagram explaining the “Box Model”.
23. What is one way to cure many IE browser bugs?
24. What is the effect of using the clear property with floated elements?

Week 4 Study Questions and Readings

25. What site tracks and documents CSS bug and hacks?
26. How can we circumventing a majority of IE/PC bugs without using hacks?
27. What is one way to catch design problems before they become too complicated to repair?
28. What browsers should be used when designing with CSS?
29. What is one method of circumventing Netscape 4 CSS issues?
30. Which HTML tags are used in creating CSS menu systems?

Additional Resources

- o <http://www.positioniseverything.net/ie-primer.html>
- o <http://youngpup.net/2004/condcomm>
- o http://msdn.microsoft.com/workshop/author/dhtml/overview/ccomment_ovw.asp

Week 6 Study Questions and Readings

31. What is the Document Object Model (DOM)?
32. Does every browser make use of the same DOM?
33. What are some of JavaScript's capabilities?
34. Is JavaScript a server-side or client-side technology?
35. What is an activity diagram?
36. What is meant by branching in activity diagrams?

Additional Resources

- http://pigseye.kennesaw.edu/~dbraun/csis4650/A&D/UML_tutorial/diagrams.htm
- <http://hotwired.lycos.com/webmonkey/98/37/index3a.html?tw=backend>

Week 7 Study Questions and Readings

37. Write both an HTML comment and a JavaScript comment.
38. What is the difference between a string and a number?
39. What is the result of the alert() method?
40. What is the result of the document.write() method?
41. What is an event handler?
42. What is a conditional statement used for?
43. What is a variable?
44. What is the difference between a local and a global variable?
45. How would you make a link that opens a pop-up window?
46. How would you write a link to close a pop-up window?

Additional Resources

- <http://hotwired.lycos.com/webmonkey/98/37/index3a.html?tw=backend>
- <http://hotwired.lycos.com/webmonkey/programming/javascript/index.html>

Week 8 Study Questions and Readings

47. What is an Array?
48. What is a conditional statement?
49. What is the difference between an variable and an array?
50. What is a repeat loop?
51. What does the indexOf () string method perform?
52. What does the charAt() string method perform?
53. What does the substring() string method perform?
54. What is browser detection?
55. What is form validation?

Additional Resources

- <http://www.classbot.com/javascript/>

ASSIGNMENTS

Assignment 1. Course Web Log

Create a course journal using blogger.com. Create your own custom template, and improve it as the quarter continues. Your blog should be posting to your server space and working properly by the end of lab one. At week five, you should have your own custom template in place following basic design principles. By then end of the quarter, your blog should make use of an external style sheet for its formatting and layout, and should use valid XHTML and CSS. Include all links to all assignments per the instructions in the above the section titled, "Submitting Assignments".

Marking Criteria

Total Points: /100

- Technical sophistication (50)
- Visual sophistication (50)

Assignment 2. CSS Layout

Using the example XHTML provided at <http://csszengarden.com>, create a unique layout and page design for this single XHTML document. You are not allowed to modify the HTML at all. You may use embedded style sheets during the design process, but they must be externalized once the design is complete. You are not allowed to begin with the example CSS file. You may consult it, but you must build your CSS from scratch. A word of advice, keep the style rules as simple as possible. Often students will create odd combinations of negative margins, absolute positioning and padding to nudge things around the page. More often than not, the same results can be had using only positioning. When things get too complex, scrap the style rule and start fresh. You will end up with the answer faster and with cleaner code. Be diligent in planning your design on paper first. Look at the examples at CSSZenGarden.com and realize just how high the benchmark has been set.

Marking Criteria:

Total Points: /100

- Technical sophistication (50)
- Visual sophistication (50)

Assignment 3. Site Redesign 1

Redesign the SPOA (Skate Park of Athens, <http://www.diggiemoon.com/spoa/>). Use XHTML 1.0 Transitional markup and CSS for layout. You will be redesigning 4 pages (Home, The Plan, News, Donate). If you plan the page structure well before you begin, the process will go much more smoothly. Firstly, create and validate the clean, well-structured XHTML. Second, apply the style. The site must appear to be 90% consistent between Internet Explorer 6 (PC), Mozilla /Firefox, and Opera 7.

Marking Criteria

Total Points: /200

- Technical sophistication (100)
- Visual sophistication (100)

Assignment 4. Site Redesign 2

Redesign the following web site. Use XHTML 1.0 Transitional markup and CSS for layout. (<http://thisamericanlife.org/>) The assignment has the same criteria as Redesign 1. The assignment has more pages and more content to work with. The following pages are required to be redesigned. Redesign the site as if it only consisted of the following pages:

- Home - <http://thisamericanlife.com/>
- Never heard us? - <http://thisamericanlife.com/pages/about.html>
- Where to Listen - <http://thisamericanlife.com/pages/listen.html>
- Press Clips - <http://thisamericanlife.com/pages/press.html>
- Staff - <http://thisamericanlife.com/pages/staff.html>
- All Episodes - <http://thisamericanlife.com/pages/archives/archivemain.html>
- FAQ - <http://thisamericanlife.com/pages/faq.html>
- Mailinglist - <http://epistolary.org/mailman/listinfo.cgi/thislife>
- For Educators - <http://thisamericanlife.com/pages/educate.html>
- Internships - http://thisamericanlife.com/pages/faq_extras/internships.html

- Submitting Work - http://thisamericanlife.com/pages/faq_extras/faqsubmissions.html
- Contact us - <http://thisamericanlife.com/pages/contact.html>

You are NOT allowed to redesign the logo.

You are NOT allowed to edit down the copy.

You ARE allowed to reorganize and restructure the content to improve the information architecture and usability.

You must retain the sponsor logos.

Marking Criteria

Total Points: /200

- Technical sophistication (100)
- Visual sophistication (100)

EXTRA CREDIT

Extra Credit 1. CSS Tutorial

Create a tutorial site on the use of CSS. Your navigation system will have buttons/links labeled 'Home', 'CSS intro' (w/ sub pages -local, global, and linked),'Style rules'(discuss - selectors, properties, and values),'The Box Model' (discuss - padding, borders and margins), and "Links to resources".

Your user interface should indicate where one is in the site. Your site should also demonstrate your understanding of divs, used both as a placement/layout device AND as a tool for creating design elements. Your site should demonstrate the separation of content from presentation. This includes properties such as colors, typography, and positioning. Be sure to keep your code clear and well commented.

Marking Criteria

Total Points: /10

- Technical sophistication (3)
- Visual sophistication (3)
- Quality of content (4)

Extra Credit 2. Dynamic CSS

Create 4 extra style sheets for your course blog. Add five links to the blog, which will activate the style sheets upon clicking the link. See <http://www.aalistapart.com> for further information on approaches to this problem.

Marking Criteria

Total Points: /10

- Technical sophistication (5)
- Visual sophistication (5)