

(prevue version – some details may change)
LMC 6313 Principles of Interaction Design Fall 2014

Meetings: Mondays 10-12, Wednesdays 10-12, Friday 11-12. Most MW meet in Skiles 002 for Recitation; Most F meet in Skiles 346 for lab time -- see schedule for details. The course is 2/5 Recitation and 3/5 Lab over the semester.

Instructor: Janet H. Murray
jmurray@gatech.edu
Office Hours: Monday 4-6 TSRB 320A

Teaching Assistant: Eric Corbett
ecorbett@gatech.edu
Office Hours: TBA, Located in Skiles 346 (Lab) or available to meet elsewhere by appointment

Course Objectives

To articulate goals and methods for the design of digital artifacts that will remain valid over a long period of technological innovation. To approach the design of digital artifacts as part of the collective task of inventing media formats and genres. To prepare students for professional employment with projects that integrate immediately useful technical methods with enduring design considerations.

Learning Outcomes

Ability to use coherent, focused, design language to critique digital artifacts.

Ability to apply principles of information/interaction design to create a completed prototype built using SQL and PHP.

Ability to apply principles of interaction/information design to create a completed prototype of a complex system model using javascript and HTML5.

Ability to present design choices orally and visually in a focused, efficient, persuasive, and insightful manner.

Policies

Students are expected to indicate the source and authorship of any work not original to them. Students are expected to come to class prepared and to attend to and actively respond to presentations by the instructor and fellow students. All students will have access to the DM Lab in Skiles 346 and are expected to abide by the rules of that lab, including never propping open doors or leaving the room unlocked. Students are expected to refrain from distracting and disruptive behaviors in class and in the shared lab, and to treat one another with professional respect and courtesy.

Texts

Janet H. Murray *Inventing the Medium: Principles of Interaction Design as a Cultural Process*, MIT Press 2012. (available on electronic reserve, and in shared copy in 346 as well as in bookstores)

Bush, Vannevar. (1945). As We May Think. *Atlantic Monthly*: 101-108. in Waldrup-Fruin, N. and N. Montfort (2003). *The New Media Reader*. Cambridge, MIT Press and also <http://www.theatlantic.com/magazine/archive/1945/07/as-we-may-think/3881/>

Nelson, Theodor Holm (1965). "A File Structure for the Complex, the Changing, and the Indeterminate." In *Proceedings of the 20th National Conference*. New York: Association for Computing Machinery, pp. 84–100. In Waldrip-Fruin, N. and N. Montfort (2003). *The New Media Reader*. Cambridge, MIT Press.

Tim Berners-Lee et al. "The World Wide Web" in Waldrip-Fruin, N. and N. Montfort (2003). *The New Media Reader*. Cambridge, MIT Press.

Recommended

<http://lynda.com> tutorials, available for free with your GT login

Lupton, Ellen, *Visual Design Basics* website <http://www.gdbasics.com/>

Lupton, Ellen *Thinking with Type* website: <http://www.thinkingwithtype.com/>

Dan Roam, *The Back of the Napkin* (2008)

Nelson, T. (2007). Transclusion: Fixing Electronic Literature, Google Video.
<http://video.google.com/videoplay?docid=246536133655830340>

Berners-Lee, T., J. Hendler, et al. (2001). "The Semantic Web." *Scientific American* (May 2001).
<http://www.scientificamerican.com/article.cfm?id=the-semantic-web>

Berners-Lee, T., N. Shadbolt, et al. (2006). "The Semantic Web Revisited." *IEEE Intelligent Systems*.
http://icccexplore.ieee.org/xpls/abs_all.jsp?arnumber=1637364

Berners-Lee, T. (2007) Giant Global Graph. In [timbl's blog](http://timbls.blogspot.com/) <http://dig.csail.mit.edu/breadcrumbs/node/215>

Requirements [with grade % in points]:

5 Short Design Notes (4 points each) consisting of one or more annotated images of an artifact linked to relevant video or website where appropriate, accompanied by no more than 200 well-chosen words identifying a significantly good or bad design feature in clear, meaningful formal design language **specifically related to that week's readings**. All design notes must be submitted by 12:01am of the first lecture/recitation meeting day of the week (usually a Monday), unless otherwise indicated. Students may choose any 5 but **at least 2 must be submitted by week 6**. Students can choose to submit additional Design Notes, which will count for up to 2 pts each. See Calendar and course web site for due dates, assignment details, and weekly topics. [20 points total]

Class participation and constructive mutual critique [15 points]

3 Lab Exercises covering HTML5, PHP, CSS, databases, Javascript [total 15 points]

Exercise 1: Personal online portfolio with HTML/CSS/use of grid [5%]

Exercise 2: Demonstration of PHP/SQL/API essentials [5%]

Exercise 3: Author content for a Javascript interactive decision system [5%]

2 Interaction Design Projects [25 points each = total 50 points]

Each Project has multiple deliverables (described in more detail below and on course website) which count toward the grade, in addition to the related lab assignments which are graded separately (see calendar for due dates):

- Extended Design Critique of a digital artifact related to the project you have in mind. This is an Oral/Slide presentation (slide-by-slide outline provided, timing strictly enforced), with the final slide being a Topic Statement of your project.
- A preliminary wireframe or interactive mockup of your project

- A Final Design Document presented in Oral/Slide presentation (slide-by-slide outline provided, timing strictly enforced)
- A running prototype, with demo presentation as part of Final Design Document presentation (timing constraints apply)
- A screencast capture of an ideal demonstration of your project

Each project is graded 5 pts for the preliminary Extended Design Critique, 10 points for project design, 5 points for technical achievement, 5 points for Oral/Slide Communication (25 points project total)

Extended Design Critiques (DC) of a related object (oral reports with slides prepared from required outline) DC1 focuses on an information resource (e.g. IMDB, a “multimedia” “ebook”) related to your topic for Project 1. DC2 focuses on a simulation (e.g. a game like lemonade stand or Civilization; a scientific model of a pond) related to your topic for Project 2. Must be uploaded to course website by 12:01am of first meeting day of the week they are due

Project 1: An application that meaningfully combines information in multiple media types from multiple sources into one resource that is more useful or expressive than the individual components (e.g. a guide to skateboarding sites that includes user ratings, photographs, videos, and maps; an analysis of a political issue drawing on text and video news sources, partisan websites and blogs, and authoritative statistical resource). This project must run in a browser, using SQL and PHP. (Full assignment is on the course website)

Project 2: An interactive model of a complex system (e.g. a lemonade stand, a biological ecosystem) using javascript and HTML5. (Full assignment is on the course website)

All deliverables must be uploaded to course website by 12:01am of first meeting day of the week they are due.

Extra credit up to 5% for helpfulness to other students by sharing expertise and for outstandingly insightful in-class design responses to others’ presentations. As indicated above, students may earn up to 10 points extra credit by handing in more than 5 design notes.

This schedule is subject to change as the semester progresses! Please refer to the course site for the latest version: <http://classes.lmc.gatech.edu/lmc6313fl4/>

	M, W, F	Topic	Due	Lab	Read all and hand in critiques for any 5 chapters
1.	August 18, 20, –meet in Skiles 002 Mon/Wed, lab Friday August 22 Lab	Inventing the Medium: Definitions, Methods, Design Goals		HTML, CSS	<i>ITM</i> Preface; Ch 1 (read; note due Monday 8/25)
2.	August 25, Design Notes 1 and 2 due 27 28 LAB: Lab Exercise 1 Due		Monday: Design Note 1,2 Friday: Lab Exercise 1: Portfolio	Portfolio Due	<i>ITM</i> Ch 2
3.	Sept 2- NO CLASS Sept 4 Recitation, Design Note 3 Sept 6 Lab	Maximizing Digital Affordances	Wed: Design Note 3	PHP, Database, API	<i>ITM</i> Ch 3
4.	Sept 8 – Recit Design Note 4 (Ch 7) Sept 10 – LAB Sept 12 - Lab	Info Design: Library and Database Models	Design Note 4	PHP, Database, API	<i>ITM</i> Ch 7
5.	Sept 15 Present DC1 Sept 17 Present DC1 Sept 19 Lab	DC 1 Presentations	DC 1 with Project 1 Topic	PHP, Database, API	<i>ITM</i> Ch 8
6.	Sept 22 – Recit Design Note 5 (ch 8) 6 (ch 9) Sept 24 – Recit Sept 26 – Lab Exercise 2 Due	Info Design: Structured Document Model	Design Note 5 (ch 8) 6 (ch 9) Lab Exercise 2 Sept 28	PHP, Database, API	<i>ITM</i> Ch 9 ALSO READ V. Bush, Ted Nelson Tim Berners-Lee
7.	Sept 29 Recit: Wireframe Critique Oct 1 Recit: Wireframe Critique Oct 3 Lab	Wireframes Critique	Wireframes DUE	Project 1 lab	
8.	Oct 6 Lab Oct 8 Lab Oct 10 Lab	Project 1 lab	Project 1 lab	Project 1 lab	
9.	Oct 14 NO CLASS Oct 16 Recit (Proj 1 DUE Presentations) Oct 18 Recit (Proj 1 Presentations) (we may need to schedule an extra class hour)	Project 1 Presentations	Project 1 presentation and running prototype due October 16		
10.	Oct 20 Recitation Design Note 7 (Ch 13) Oct 22 Recit Oct 24 Lab	Procedural Design: Complexity and Replay	Design Note 7 (Ch 13)	Pseudocode	<i>ITM</i> Ch 13 Review <i>ITM</i> Ch 4, 5
11.	Oct 27 Recit DC 2 Presentations Due Oct 29 Recit (DC 2 Presentations Continue Nov 1 Lab	DC2 Presentation	Mon: DC 2 with Proj 2 Topic		
12.	Nov 3 Recit Design Note 8 (ch10) and 9 (ch 11) Nov 5 Recit Nov 7 Lab	Tool and Machine Models of Design	Design Notes 8, 9	Javascript	<i>ITM</i> Ch 10, 11
13.	Nov 10 Recitation Design Note 10 (Ch 12) Nov 13 Lab Nov 15 Lab Lab Exercise 3 Due	Companion Model	Mon: Design Note 10 Fri: Lab Exercise 3	Javascript Lab Week for Project 2	<i>ITM</i> Ch 12
14.	Nov 17 Recitation (Mockup Testing) Nov 19 Recitation (Mockup Testing) Nov 22 Lab	Optional Design Note for Scripting the Interactor: Companion	Project 2 Mock up due Nov 17	Project 2 Lab	
15.	Nov 24 Lab Nov 26 Lab Nov 30 HAPPY THANKSGIVING	Optional Open Lab Week			
16.	Dec 2 Project 2 Due : Presentations Dec 4 Project 2 Presentation continue Dec 6 Project 2 Presentations	Project 2 Presentations	Project 2 Prototype and Slide Presentations due Mon. Dec 2;	No lab – Presentations of Project 2 continue	

	Note: revisions of final project accepted up until Monday 12/9 5pm		revisions accepted all week and up to 12/9 5pm		
--	--	--	---	--	--