

CMSI 370

INTERACTION DESIGN

<http://myweb.lmu.edu/dondi/fall2008/cmsi370>

Fall 2008 — Pereira 208
TR 10:50am–12:05pm, 3 semester hours
Office Hours: TR 3–6pm or by appointment

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Course Objectives

To learn the art and science of interaction design, and to learn how to program user interfaces. Students will be exposed to the first principles and metrics behind human-computer interaction, applying these principles by studying and comparing actual systems while gaining working knowledge of user interface technologies such as Java's Swing, XHTML/CSS/JavaScript, and OpenGL's GLUT.

Materials and Texts

- Ben Shneiderman and Catherine Plaisant, *Designing the User Interface: Strategies for Effective Human-Computer Interaction*, Fourth Edition, Addison Wesley, 2004.
- Jakob Nielsen, *Usability Engineering*, Morgan Kaufmann, 1994.
- Donald A. Norman, *The Design of Everyday Things*, Basic Books, 2002.
- Assorted handouts, articles, and sample code to be distributed throughout the semester.

Additional information is also available on the Web; do not hesitate to look for further sources of information regarding the concepts, techniques, tools, and paradigms that we will discuss.

Course Work and Grading

Course work consists of homework (20%), 1 midterm (20%), 1 design poster (10%), 1 term portfolio (25%), and 1 final exam (25%). Letter grades are determined as follows: $\geq 90\%$ gets an A– or better; $\geq 80\%$ gets a B– or better; $\geq 70\%$ gets a C– or better. I may curve grades upward based on qualitative considerations such as degree of difficulty, effort, class participation, time constraints, and overall attitude throughout the course. Grades are never curved downward.

Homework

Homework consists of questions, exercises, and programming assignments to be given throughout the semester. Homework is where you can learn from your mistakes without grading penalty: if you do the work and submit it on time, you will get full credit, regardless of correctness. What goes around comes around: the effort you put into your homework pays off in the tests and the portfolio. The homework submission deadline is always the beginning of class on the designated due date; the due date is encoded in the homework number. Submissions after the deadline receive half credit, period. Extra credit homework may be assigned; fulfilling this is counted on top of the 20% allocation of homework to your final grade.

Tests

The midterm is initially scheduled for October 7. The final exam is scheduled for December 9. All tests are open-paper-everything; no sharing. “Open computer” might also be allowed depending on the scope, subject matter, or circumstances. You may neither solicit nor give help while the exam is in progress. Late and/or missed tests are handled on a case-to-case basis; in all instances, talk to me about them.

Design Poster

Some of your homework assignments will involve original user interface designs. Near the end of the semester, one of these design exercises will be re-rendered as a poster, for presentation and display somewhere in Doolan Hall. If possible, we will try to arrange for a poster session where you can discuss your designs with faculty, colleagues, and friends. The poster is graded as credit/no-credit (like homework), and is due on December 9. Late posters will not be accepted.

Term Portfolio

At the end of the semester, you will be asked to resubmit some assignments in a *term portfolio* — a showcase of sorts for your newfound interaction design skills. Unlike homework, the portfolio will be graded more closely; presumably, by semester's end, you will know this stuff better, and will be able to improve your prior work.

Written work will be graded along these criteria:

1. *Content (40%)*: Includes the requested information; substantive, not shallow
2. *Organization (30%)*: Structures information well; ideas flow smoothly from one to the other
3. *Writing (20%)*: Precise language, proper tone, clear statements, correct grammar
4. *Polish (10%)*: Evidence of proofreading and multiple reviews; no misspellings nor typos; care given to presentation and formatting

Technical work will be graded along these criteria:

1. *Design (30%)*: Clarity, flexibility, and ease of maintenance; elegance and innovation; applies proper separation of concerns; satisfies the “one change, one place” property
2. *Functionality (30%)*: Works as requested; produces correct answers/results; performs in a reasonable amount of time; includes tests that demonstrate correct behavior
3. *Naming (20%)*: Clarity and consistency; names correspond to roles, types, or actions
4. *Documentation (15%)*: Presence of README or overview material; abundance of comments in code; genuinely useful information
5. *Version control (5%)*: Sufficient frequency; informative commit log

The term portfolio is due on December 9. Late portfolios will not be accepted.

Version Control

Version control is an indispensable part of today's computer science landscape in industry, the academe, and the open source community. The Keck Lab provides you with individual version control depots via CVS (Concurrent Versions System). We use CVS heavily in this course: most deliverables are to be turned in via CVS. Specific instructions and guidelines on CVS will be provided; until then, you are encouraged to read up on your own, particularly if you've never used it before.

Attendance

Attendance at all sessions is not absolutely required, but if you must miss class, it is your responsibility to keep up with the course work. Note that the add/drop/withdraw-with-100%-refund deadline is August 30. The withdrawal or credit/no-credit status deadline is October 31.

University Policy on Academic Honesty

Loyola Marymount University expects high standards of honesty and integrity from all members of its community. All students are expected to follow the LMU honor code, as stated in the *LMU Undergraduate Bulletin 2008-2010*, pp. 58–59 (online at <http://www.lmu.edu/Page13245.aspx#honorcode>).

Course Schedule

This schedule may change based on the actual ebb and flow of the class; deadlines, exams, university, and national dates (italicized) are less likely to change than course topics.

August/ September	Guidelines, principles, and theories; Swing; dynamic HTML
<i>August 30</i>	<i>Last day to add or drop a class without a grade of W; last day to withdraw from the semester for a 100% refund</i>
October	Menus, forms, and dialogs
October 7	Midterm
<i>October 20</i>	<i>California voter registration deadline: http://www.sos.ca.gov/elections/elections_vr.html</i>
<i>October 31</i>	<i>Withdraw/credit/no-credit deadline</i>
November	Direct manipulation
<i>November 4</i>	<i>Election day — go out and vote!</i>
<i>November 26–28</i>	<i>Thanksgiving; no class</i>
December	Miscellaneous IxD topics
<i>December 9</i>	<i>Final exam, 11am; design posters and term portfolios due</i>

You can view the class calendar on the Web at <http://ical.mac.com/dondi/LMU>. If you have an iCalendar-savvy client (i.e., Mozilla Calendar, Ximian Evolution, KOrganizer, Apple iCal, etc.), you can subscribe to the class calendar at webcal://ical.mac.com/dondi/LMU.ics. On-the-fly updates and adjustments to the class schedule will be reflected in this calendar.