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LIS 643: Information Architecture and Interaction Design Fall 2012

Tuesday 3:30-5:50p • Pratt Manhattan Center, Room 609

Credits: 3

Pre-requisites: LIS 653 and LIS 654

Office Hours: Monday 1:30-3:00p, Thursday 3:30-6p, and by appointment

BULLETIN DESCRIPTION

Drawing on the principles of information architecture, interaction design, and from the domains of information science, design, art, media ecology, and psychology, this course provides students with a unified method for thinking about and designing for information and interactivity in space and to some extent, place. Special attention is given to new media in general and the web specifically. Students are expected to demonstrate not only an ability to think and do, but also to reflect on how thinking and doing iteratively lead to, and influence, each other.

DETAILED DESCRIPTION

The ubiquity and pervasiveness of digital technology has highlighted the need for “good” design, but what is “good” design and, more importantly, how do you do it? In this course, students will explore this challenge while gaining the theoretical and practical knowledge of how to design interactive systems with a user-centered approach. Through lectures, in-class activities, readings, and individual and small group assignments, students will gain a solid understanding of and hands-on experience with a variety of design methods including user research, card sorting, sketching and ideation, prototyping, design critiques, and visual design. Because much of the work of information architects and interaction designers happens behind the scenes, effectively communicating the results and value of design work will be a core focus of this course.

COURSE GOALS & OBJECTIVES

The goals of this course are to:

- Develop an understanding and appreciation of the principles and process of user-centered design.
- Provide practical experience with the methods and tools of information architecture and interaction design.
- Improve individual and collaborative skills in problem solving, communication, and creative thinking.

Upon successful completion of this course, a student will be able to:

- **Explain** and **describe** the principles of information architecture and interaction design using appropriate terminology.
- **Choose** and **employ** appropriate methods of information architecture and interaction design to understand users’ needs, behaviors, capabilities, and interests.
- **Select** and **use** industry-standard digital (and non-digital) technologies to effectively communicate design ideas.
- **Create** high-quality work products that are consistent with professional practice.

REQUIRED TEXTS & COURSE READINGS

There is no required textbook for this course. However, there will be several required readings each week that are meant to not only introduce the concepts covered in the lectures but also to broaden and enrich your understanding of those concepts. It is expected that you come to class having read the assigned readings for the week. All readings will be available via the LMS (lms.pratt.edu).

COURSE WEBSITE

A copy of the syllabus, assignment descriptions, and all course readings will be posted on the course website via Pratt's Learning Management System (LMS) accessible at lms.pratt.edu or my.pratt.edu. All electronic communication for the course will be sent through the LMS, which requires use of your official Pratt e-mail address. If you don't use your Pratt e-mail address, please make sure you forward your messages to an address that you check regularly (this can be done from webmail).

GROUP WORK

A majority of course work will be carried out in the context of a group project, but individual assignments will make up a substantial portion of this work and will directly inform project work. Groups will consist of 3-4 people, depending on class size.

There are three primary reasons for using group work in this class:

1. **Pedagogical:** the discussion and negotiation that occurs in groups will not only deepen and extend your learning, but it also leads to enhanced creativity and increased effectiveness and productivity.
2. **Practical:** designing a system or tool individually would not be practical in a 15-week academic term. Working in a group reduces the workload and provides opportunities for each group member to contribute what they can, when they can.
3. **Vocational:** groups are a common feature of professional settings, particularly in system design. Job descriptions routinely ask for applicants with effective communication skills and experience working in teams, so I hope this course helps you develop these skills.

COURSE REQUIREMENTS

The overall course grade will be based on a total of 100 points, weighted as follows:

- 5% Class Participation
- 40% Design Deliverables (Individual)
 - D1: Understanding Users (10%)
 - D2: Personas & Scenarios (10%)
 - D3: Competitive Analysis (10%)
 - D4: Sketches & Wireframes (10%)
- 40% Group Project
 - P1: Design Brief (5%)
 - P2: Card Sorting (10%)
 - P3: Final Report (25%)
- 15% Final Paper: The Design Process

Grades will be awarded for points accumulated based on Pratt's grading scale:

| | | | | | |
|---------------|----|--------------|----|-------------|----------------|
| Excellent | A | 4.0 (94-100) | A- | 3.7 (90-93) | |
| Above Average | B+ | 3.3 (87-89) | B | 3.0 (84-86) | B- 2.7 (80-83) |
| Acceptable | C+ | 2.3 (77-79) | C | 2.0 (74-76) | |
| Failure | F | 0.0 (00-73) | | | |

Participation [5%]

Active participation in class is essential to successful learning. Simply attending class will not suffice; you must actively participate in order to earn this portion of the final grade. Your participation in class will be taken into consideration in the case of border-line grades. Students can earn a maximum of 5 points (5%) from participation in class. Some ways to participate in the course include:

1. Asking questions in class.
2. Answering questions posed by the instructor or students.
3. Making comments in general class discussions.
4. Participating actively in exercises and discussions in your small groups.
5. Volunteering to report your small group's discussion to the class.

Design Deliverables (Individual) [40%]

As part of the group design project, there will be four individual design deliverables: understanding users, personas & scenarios, competitive analysis, and sketches/low-fidelity prototypes. Each of these deliverables will be submitted individually but must be completed in the context of the group project and will make up a substantial portion of your group's final report. More details on these deliverables will be provided in class.

Group Project [40%]

For the group project, you will work with 2-3 of your classmates to re-design an existing interactive system or website for a small- to medium-size organization (e.g., library, museum, archive, etc.). Portions of the project will be submitted individually, there will be three assignments that will be submitted as a group: 1) a design brief describing the system/website your group has chosen to re-design (5%); 2) the results of card sorting showing your recommended navigation structure (10%); and 3) a final report that includes a summary of your group's design process and includes a final high-fidelity prototype (25%). More details on each of these assignments will be provided in class and you will be given class time throughout the semester to work on the project.

Final Paper: The Design Process [15%]

This paper will be a reflection on your group project. As such, it is fairly open ended. Potential topics include: what you learned from going through the user-centered design process; your experience working with a group to design a system; the strengths/weaknesses of user-centered design methods; etc. You must integrate concepts discussed in class and from the assigned readings to back up your claims and show mastery of the material. This paper should be 3-5 pages long.

COURSE SCHEDULE (SUMMARY)

NOTE: A detailed schedule with assigned readings and topic descriptions is presented at the end of this document.

| Week | Date | Topic | Due |
|------|-------|-----------------------------------------|---------------------------|
| 1 | 8/28 | Welcome + Overview | |
| 2 | 9/4 | Design: History and Process | |
| 3 | 9/11 | User Research: Methods & Tools | P1 |
| 4 | 9/18 | Navigation, Organization & Labeling | |
| 5 | 9/25 | User Research: Analysis & Communication | D1 |
| 6 | 10/2 | Competitive Analysis & Site Maps | |
| 7 | 10/9 | Mental Models & Card Sorting | D2 |
| 8 | 10/16 | Cognition & Emotion | |
| 9 | 10/23 | Sketching, Ideation, & Wireframes | D3 |
| 10 | 10/30 | LAB (class time for project) | P2 |
| 11 | 11/6 | **NO CLASS** | |
| 12 | 11/13 | Prototyping | D4 |
| 13 | 11/20 | Design Critiques | |
| 14 | 11/27 | Basics of Visual Design | |
| 15 | 12/4 | Future of IA/IxD + LAB | |
| 16 | 12/11 | FINALS WEEK – projects due | P3 + Final Paper |

ASSIGNMENTS

Because of the project-based nature of this course, all graded assignments are due on the date indicated with no exceptions. **All assignments must be uploaded to the LMS before class on the due date unless otherwise noted.**

Late assignments will be graded at 50%. Assignments that are more than 24 hours late will not be graded at all.

ATTENDANCE

Attendance is expected and required. Students with 3 absences (for any reason, including documented medical reasons) cannot expect to receive an A in the course and, in accordance with Pratt Institute policy, may be asked to drop the class.

Please notify me ASAP if you know you will be absent. You will be expected to make up any missed material for classes that you miss.

COMMUNICATION

The best way to contact me is by email (cmacдона@pratt.edu). I check e-mail regularly during the work week and on weekends. Therefore, you can expect an email response within 24 hours (but usually much sooner). Should that change, you will be notified in advance.

POLICIES & PROCEDURES

Disabilities

Students who require special accommodations for disabilities must obtain clearance from the Office of Disability Services at the beginning of the semester. For further information, contact the Coordinator of Disability Services in the Office of the Vice President for Student Affairs at 718.636.3711.

Incompletes

Incompletes will not be awarded except in cases of documented medical reasons and at the discretion of the professor.

Institute-Wide Policies

All Institute-wide policies are listed in the Bulletin under “Community Standards” available online at http://www.pratt.edu/student_life/student_affairs/student_policies/ and which include policies on attendance, academic integrity, plagiarism, computer, and network use.

Laptops & Cell phones

Please turn your cell phone off during class. Laptops are permitted in the classroom for coursework purposes only.

Research Participation

As part of the course requirements, students may be asked to participate in research studies being conducted by SILS faculty.

Revisions to the Syllabus

While this syllabus provides a reliable framework for the course, including readings and assignments, it is subject to change pending notice in class and on the course website.

SILS E-PORTFOLIO

Starting Fall 2012, all students entering the MSLIS degree program are required to complete an e-portfolio that must be approved by their advisor before they will be permitted to graduate. The e-portfolio provides students with an opportunity to showcase their best work from the courses they have taken at SILS, and an opportunity to demonstrate they have met the learning objectives of a Master of Information and Library Science.

Work completed for this course may be included in the e-portfolio. Students must demonstrate that their work fulfills at least one of the following learning outcomes:

1. Students carry-out and apply research.

2. Students demonstrate excellent communication skills and create and convey content.
3. Students use information technology and digital tools effectively.
4. Students apply concepts related to use and users of information and user needs and perspectives.
5. Students perform within the framework of professional practice.

Detailed information on the learning outcomes, requirements and how to create your e-portfolio is available from:

http://www.pratt.edu/academics/information_and_library_sciences/degree_programs/sils_eportfolio/

ACADEMIC HONESTY

I take issues of academic honesty very seriously. Instances of cheating, plagiarism, and improper use of intellectual property will not be tolerated. Do not plagiarize or copy from anywhere, including articles, websites, class handouts, class slides, other students' work, web design templates, work you have submitted to another course, etc. Unless specifically indicated otherwise, all assignments submitted for this course must be your own work, with sources properly cited.

Any assignment that includes copied material will be given an automatic *zero* – this includes cases where only a portion of the assignment is copied. Depending on the nature of the offense, this may also result in failure of the course. **No excuses will be accepted.**

*****Below is the official academic integrity policy of Pratt Institute*****

Pratt Institute considers Academic Integrity highly important. Instances of cheating, plagiarism, and wrongful use of intellectual property will not be tolerated.

- Faculty members will report each incident to the registrar for inclusion in students' files.
- More than one report to the registrar during a student's program of study at Pratt will result in a hearing before the Academic Integrity Board, at which time appropriate sanctions will be decided. These may include dismissal from the Institute.
- The nature and severity of the infraction will be determined by faculty members who can: ask students to repeat an assignment, fail students on the assignment, fail students in the course and/or refer the incident to the Academic Integrity Board.

For more details about these procedures please see the Pratt Student Handbook, the *Pratt Bulletins*, and the pamphlet entitled *Judicial Procedures at Pratt*.

Cheating

If students use dishonest methods to fulfill course requirements, they are cheating. Examples of this include, but are not limited to:

- Obtaining or offering copies of exams or information about the content of exams in advance.
- Bringing notes in any form to a closed book exam.
- Looking at another student's paper during an exam.
- Receiving or communicating any information from or to another student during an exam.

Plagiarism

Plagiarism is a bit more complicated, but the rules of documentation and citation are very specific and are tailored to different academic disciplines. Types of plagiarism include:

- Including any material from any source other than you in a paper or project without proper attribution. This includes material from the Internet, books, papers, or projects by other students, and from any other source.
- Using your own work to fulfill requirements for more than one course
- The extensive use of the ideas of others in your work without proper attribution.
- Turning in work done by another person or a fellow student as one's own.

Please remember that all work must be the student's own. If it is not, the source should be cited and documented appropriately.

If there are aspects of this statement that are not understood, ask faculty members for help.

COURSE SCHEDULE (DETAILED)

| Week | Date | Topic | Due |
|------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | 8/28 | Welcome + Overview | |
| 2 | 9/4 | Design: History and Process <ul style="list-style-type: none"> ▪ Moggridge, B. (2007). The mouse and the desktop. In <i>Designing Interactions</i> (pp. 15-72). Cambridge, MA: MIT Press. ▪ Myers, B. (1998). A brief history of human-computer interaction technology. <i>ACM interactions</i>, 5(2), 44-54. ▪ VIDEO: <i>The Deep Dive</i> (in-class) | |
| 3 | 9/11 | User Research: Methods & Tools <ul style="list-style-type: none"> ▪ Rogers, Y., Sharp, H., & Preece, J. (2011). Data gathering. In <i>Interaction Design: Beyond Human-Computer Interaction</i> (3rd Ed.) (pp. 222-269). Chichester: John Wiley & Sons, Inc. | P1 |
| 4 | 9/18 | Navigation, Organization & Labeling <ul style="list-style-type: none"> ▪ Wodtke, C., & Govella, A. (2009). The tao of navigation. In <i>Information Architecture: Blueprints for the Web, Second Edition</i> (pp. 189-218). Berkeley, CA: New Riders. | |
| 5 | 9/25 | User Research: Analysis & Communication <ul style="list-style-type: none"> ▪ Cooper, A., Reimann, R., & Cronin, D. (2007). Modeling Users: Personas and Goals. In <i>About Face 3: The Essentials of Interaction Design</i> (pp. 75-108). Indianapolis, IN: Wiley Publishing. | D1 |
| 6 | 10/2 | Competitive Analysis & Site Maps <ul style="list-style-type: none"> ▪ Brown, D. (2011). Site maps. In <i>Communicating Design: Developing Web Site Documentation for Design and Planning</i> (2nd Ed.) (pp. 94-123). Berkeley, CA: New Riders. ▪ Brown, D. (2011). Competitive reviews. In <i>Communicating Design: Developing Web Site Documentation for Design and Planning</i> (2nd Ed.) (pp. 254-263). Berkeley, CA: New Riders. | |
| 7 | 10/9 | Mental Models & Card Sorting <ul style="list-style-type: none"> ▪ Spencer, D., & Warfel, T. (2007). Card sorting: A definitive guide. Retrieved from: http://boxesandarrows.com/view/card sorting a definitive guide | D2 |

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|-----------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| 8 | 10/23 | Cognition & Emotion <ul style="list-style-type: none"> ▪ Rogers, Y., Sharp, H., & Preece, J. (2011). Cognitive aspects. In <i>Interaction Design: Beyond Human-Computer Interaction</i> (3rd Ed.) (pp. 65-99). Chichester: John Wiley & Sons, Inc. ▪ Norman, D. (2004). Three levels of design: Visceral, behavioral, and reflective. In <i>Emotional Design: Why We Love (or Hate) Everyday Things</i> (pp. 63-98). Cambridge, MA: Basic Books. | |
| 9 | 10/23 | Sketching, Ideation, & Wireframes <ul style="list-style-type: none"> ▪ Buxton, B. (2009). The anatomy of sketching. In <i>Sketching User Experiences</i> (pp. 105-114). San Francisco, CA: Morgan Kaufmann Publishers. ▪ Buxton, B. (2009). Sketches are not prototypes. In <i>Sketching User Experiences</i> (pp. 139-141). San Francisco, CA: Morgan Kaufmann Publishers. ▪ Unger, R., & Chandler C. (2009). Wireframes and annotations. In <i>A Project Guide to UX Design</i> (pp. 185-203). Berkeley, CA: New Riders. | D3 |
| 10 | 10/30 | LAB – time for class project <ul style="list-style-type: none"> ▪ <i>No readings this week</i> | P2 |
| 11 | 11/6 | **NO CLASS** Mid-Semester Break | |
| 12 | 11/13 | Prototyping <ul style="list-style-type: none"> ▪ Unger, R., & Chandler C. (2009). Prototyping. In <i>A Project Guide to UX Design</i> (pp. 204-219). Berkeley, CA: New Riders. | D4 |
| 13 | 11/20 | Design Critiques <ul style="list-style-type: none"> ▪ Berkun, S. (2003). How to run a design critique. Retrieved from: http://www.scottberkun.com/essays/23-how-to-run-a-design-critique/ | |
| 14 | 11/27 | Basics of Visual Design <ul style="list-style-type: none"> ▪ Cooper, A., Reimann, R., & Cronin, D. (2007). Visual interface design. In <i>About Face 3: The Essentials of Interaction Design</i> (pp. 287-319). Indianapolis, IN: Wiley Publishing. | |
| 15 | 12/4 | The Future of Information Architecture/Interaction Design + LAB <ul style="list-style-type: none"> ▪ <i>No readings this week</i> | |
| 16 | 12/11 | FINALS WEEK – projects due | P3 + Final Paper |