Pratt

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INFO 643-01: INFORMATION ARCHITECTURE AND INTERACTION DESIGN
Fall 2023
CLASS: Tuesday 11:30 am -2:20 pm | PMC 613 (in-person)
OFFICE HOURS: Wednesday 3-4pm, Zoom (by appointment)
Credits: 3 | Prerequisites: none

BULLETIN DESCRIPTION

This course provides students with practical knowledge and hands-on experience designing digital interfaces from a user-centered perspective through an exploration of the dual practices of information architecture and interaction design. Students will go through the entire user-centered design lifecycle, from concept to prototype, and in the process will 1) learn about and employ a variety of design methods aimed at understanding users and their contexts and 2) learn about and use appropriate tools and media to create a range of design deliverables that effectively communicate design insights. At the conclusion of this course, students will have a foundation of knowledge and skills that will prepare them to do practical design work in a variety of settings and organizations.

COURSE GOALS & OBJECTIVES

The goals of this course are to:

- Gain an understanding of information architecture and interaction design and their role in the user-centered design process.
- Provide practical experience using design methods and creating design deliverables.
- Improve individual and collaborative skills in communication, collaboration, and creative thinking.

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

- Explain and describe the roles of information architecture and interaction design.
- Choose and employ appropriate methods to understand users and their contexts.
- Select and use appropriate tools and media to create design deliverables.
- Create high-quality work products that effectively communicate design insights and are consistent with professional practice.

PROJECTS AND ASSIGNMENTS

<u>Assessment and Grading</u>**

Project	**30%**
Exercises	**20%**
Class Assignments	**25%**
Readings	**15%**
Attendance/ Participation	**10%**

**Specific Assignment Descriptions and Rubrics are accessible on Canvas

Project

Project is a group assignment where a team of 3 or 4 students work on a given design brief. The design brief will have all the details and specifications of the requirements of submission. The project is designed and implanted through the course to allow students to apply the learnt methods to see how they work in design practice, sometimes in agile setups. There is one 8-week project in this class titled "Designing for Concrete IA- App/ Website." This project contributes towards 30% of your overall grade. The requirements of submissions as detailed in the project brief.

**Students in a group will be graded the same, unless received information that might affect individual grades

Exercises

Exercises are individual assignments where a student works on a given exercise brief. The exercises are designed in a way that the student's efforts are contributed towards the project and implanted through the project (above) course to contribute to their individual 20% of the overall grade. Exercises are also designed to allow students practice their tools, not methods, that will help them in applying the methods. The exercises are: 1) **Exercise 1:** Familiarizing with Context/Users; and 2) **Exercise 2:** Giving Form to IA.

**Extra Credit assignments will be provided at the end of the semester based on the student's performance.

Class Assignments

Class Assignments include class participation, engaging *in class* discussions and arranged class activities; some of which are required for submission on Canvas for grading. There are a range of activities planned that fits the learning outcomes of this course and will be revealed throughout the semester. *These activities will mostly have building properties only; extending them for testing is a personal interest.* No submissions or credit on this part if you were not in class; refer to the [Attendance Policy](). This constitutes 25% of your overall grade.

Readings

Readings include Perusall reading and annotations on the assigned reading for the week. To access your reading assignments, SignUp/ LogIn to Course Canvas and find "Perusall" in the Course Navigation column on the left. You can learn more about this tool at https://www.perusall.com/. There is a minimum of 4 quality annotations per reading which can include reflection, extension, agreement, or disagreement to the claims presented in the reading. Readings constitute 15% of your overall grade.

Class Participation and Attendance

Class Participation includes engaging in class discussions and arranged class activities. During project presentations, this might also include presentation engagement and critique from the students. Attendance includes being present in person in the class. Refer to [Attendance Policy]() for more details.

COURSE SCHEDULE AND READINGS
***Single page of Schedule for students to print**

WEEK/ WEEK OF	TOPIC	WORK DUE (follow on Canvas and Perusall for exact Deadlines)
1 Aug 28	INTRODUCTION, IXD as Profession	**R:** (Garrett, 2011, Chapter 2)
2 Sept 4	IA: Fundamentals	**R:** (Klyn, 2019; Lambe, 2014, Chapter 2; Toms, 2002; Wodtke & Govella, 2009, Chapter 1); **#CA1**
3 Sept 11 *P1 Starts*	Design Research & Methods: Interviews, Contextual Inquiry, Observations	**R:** (Cooper et al., 2015, Chapter 2; Holtzblatt & Beyer, 2014, Chapter 3)
4 Sept 18	Data Collection and Analysis: Affinity Diagramming, AEIOU Model, Personas	**R:** (Dam & Siang, 2016; Hanington & Martin, 2019, Chapter 2,3); **#Exercise1**
5 Sept 25	Synthesis: Mental Models, Task Models, Design Requirements	**R:** (Caddick & Cable, 2011, Chapter 2,4; Camacho, 2020; Rogers et al., 2011, Chapter 10); **#P1.1**
6 Oct 2	Building Information Architecture Site maps, Navigation	**R:** (Caddick & Cable, 2011, Chapter 5; Garrett, 2011, Chapter 5,6; Wodtke & Govella, 2009, Chapter 8)
7	**HOLIDAY**	
8 Oct 16	Sketching, Interaction Flows	R: (Nguyen, 2017,Ding et al., 2022, Gordon, 2021); **#P1.2: Gallery Walk, #CA2**
9 Oct 23	Wireflows and Wireframing Heuristic Principles	(Nielsen, 2020.; Rudd et al., 1996; n.d., 2016); **#Exercise2**
10 Oct 30	Usability Testing	(Krug, 2009, Chapter 1,2,4); **#P1.3**
11 Nov 6	**PROJECT PRESENTATIONS**	**#Presentation; #Documentation**
12 Nov 13	IA: 2D to 3D	R: (Resmini & Rosati, 2011, Chapters 5, 9)
13 Nov 20	IA cross-platform/ devices	(Perterson, 2014, Chapter 2; Benyon & Resmini, 2017; Dong et al., 2016; Marcotte, 2014, Chapter 1); **#CA3**
14 Nov 27	IA that is evolving a.k.a Voice-based Interfaces	**R:** (Dib, 2022); **#CA4**
15 Dec 4	IA becomes manipulative or persuasive	R: (Gray et al., 2021; Rogers et al., 2021)
16 Dec 11	TBD, **REFLECTION ON CLASS**	

Generic Deadlines

Project (P)	**Multiple Deliverables as Mentioned on Canvas**
Exercises	**Before Class, on Day of Class (by 9 am)**
Class Assignments (CA)	**After Class, same day before Midnight (by 11:59 pm)**

Readings (R)   **Before Class, day before Midnight (by 11:59 pm)**
TEXTBOOKS, READINGS AND MATERIALS

Books/ Further References
There are no required textbooks for this course. Suggested book references (you should find the files on Perusall/Canvas/ Pratt Libraries):

Rosenfeld, L., Morville, P., & Arango, J. (n.d.). *Information Architecture, 4th Edition*. O'Reilly Media, Inc. Retrieved August 4, 2023, from Pratt Library Access Link

Caddick, Richard, and Steve Cable. Communicating the User Experience : A Practical Guide for Creating Useful UX Documentation, John Wiley & Sons, Incorporated, 2011. ProQuest Ebook Central, Pratt Library Access Link.

Resmini, A., & Rosati, L. (2011). Pervasive Information Architecture: Designing Cross-Channel User Experiences. Elsevier. **[PDF available on Perusall/Canvas]**

Garrett, J. J. (2011). The Elements of User Experience: User-centered Design for the Web and Beyond. New Riders. Pratt Library Access Link

Readings
In addition to a couple of chapters from the books above, here are some assigned readings for the course. Refer to COURSE SCHEDULE AND READINGS for more details on the timeline:

Friedman M. A. V. (2011, January 12). *Responsive Web Design: What It Is And How To Use It*. Smashing Magazine. https://www.smashingmagazine.com/2011/01/guidelines-for-responsive-web-design/
Benyon, D., & Resmini, A. (2017, July 1). User experience in cross-channel ecosystems. *HCI 2017*. Proceedings of the 31st International BCS Human Computer Interaction Conference (HCI 2017). https://doi.org/10.14236/ewic/hci2017.38
Caddick, R., & Cable, S. (2011). *Communicating the User Experience: A Practical Guide for Creating Useful UX Documentation*. John Wiley & Sons. https://play.google.com/store/books/details?id=GxDqVv9H_8wC
Camacho, T. (2020, May 21). *Designing with mental model diagrams - An introduction*. SEEK Blog. https://medium.com/seek-blog/designing-with-mental-model-diagrams-an-introduction-5eadd21daf54
Cooper, A., Reimann, R., & Cronin, D. (2015). About face. *The Essentials of Interaction Design*, *3*. https://mediendb.hjr-verlag.de/vmi-buch/texte/leseprobe/9783826658884_leseprobe_01.pdf
Dam, R. F., & Siang, T. Y. (2016, November 17). Personas – A Simple Introduction. *The Interaction Design Foundation*. https://www.interaction-design.org/literature/article/personas-why-and-how-you-should-use-them
Dib, B. (2022, March 24). *The information architecture of voice user interfaces*. Bootcamp. https://bootcamp.uxdesign.cc/the-information-architecture-of-voice-user-interfaces-538f8bd86dbc
Ding, W., Lin, X., & Zarro, M. (2022). *Information Architecture: The Design and Integration of Information Spaces, Second Edition*. Springer Nature. https://play.google.com/store/books/details?id=NYpyEAAAQBAJ
Dong, T., Churchill, E. F., & Nichols, J. (2016). Understanding the Challenges of Designing and Developing Multi-Device Experiences. *Proceedings of the 2016 ACM Conference on Designing Interactive Systems*, 62–72. https://doi.org/10.1145/2901790.2901851

Garrett, J. J. (2011). *The Elements of User Experience: User-centered Design for the Web and Beyond*. New Riders. https://play.google.com/store/books/details?id=3W3SmAEACAAJ

Gray, C. M., Chivukula, S. S., Melkey, K., & Manocha, R. (2021). Understanding "Dark" Design Roles in Computing Education. *Proceedings of the 17th ACM Conference on International Computing Education Research*, 225–238. https://doi.org/10.1145/3446871.3469754

Gordon, K. (n.d.). How to Draw a Wireframe (Even if You Can't Draw). Nielsen Norman Group. Retrieved June 20, 2021, from https://www.nngroup.com/articles/draw-wireframe-even-if-you-cant-draw/

Hanington, B., & Martin, B. (2019). *Universal Methods of Design Expanded and Revised: 125 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions*. Rockport Publishers. https://play.google.com/store/books/details?id=SFnBDwAAQBAJ

Holtzblatt, K., & Beyer, H. (2014). Contextual Design: Evolved. *Synthesis Lectures on Human-Centered Informatics*, *7*(4), 1–91. https://doi.org/10.2200/S00597ED1V01Y201409HCI024

Klyn, D. (2019, November 9). *Understanding Information Architecture — The Understanding Group (TUG)*. The Understanding Group (TUG). https://understandinggroup.com/ia-theory/understanding-information-architecture

Krug, S. (2009). *Rocket Surgery Made Easy: The Do-It-Yourself Guide to Finding and Fixing Usability Problems*. New Riders. https://play.google.com/store/books/details?id=9Q3OQVyX_-QC

Lambe, P. (2014). *Organising Knowledge: Taxonomies, Knowledge and Organisational Effectiveness*. Elsevier. https://play.google.com/store/books/details?id=z1mpAgAAQBAJ

Marcotte, E. (2014). *Responsive Web Design, Second Edition*. A Book Apart, LLC. https://play.google.com/store/books/details?id=YtBSAQAACAAJ

Nguyen, H. (2017, September 27). *An Introduction to Interaction Flows*. UX Planet. https://uxplanet.org/an-introduction-to-interaction-flows-a4f783402529

Nielsen, J. (n.d.). *10 Usability Heuristics for User Interface Design*. Nielsen Norman Group. Retrieved August 15, 2023, from https://www.nngroup.com/articles/ten-usability-heuristics/

Peterson, C. (2014). Learning Responsive Web Design: A Beginner's Guide. "O'Reilly Media, Inc." https://play.google.com/store/books/details?id=ULTIAwAAQBAJ

Resmini, A., & Rosati, L. (2011). *Pervasive Information Architecture: Designing Cross-Channel User Experiences*. Elsevier. https://play.google.com/store/books/details?id=ntWc13nSiNkC

Rogers, Y., Brereton, M., Dourish, P., Forlizzi, J., & Olivier, P. (2021). The Dark Side of Interaction Design. *Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems*, Article Article 152. https://doi.org/10.1145/3411763.3450397

Rogers, Y., Sharp, H., & Preece, J. (2011). *INTERACTION DESIGN: Beyond Human-computer Interaction, 3rd Edition*. John Wiley & Sons. https://play.google.com/store/books/details?id=DfQ7zQEACAAJ

Rudd, J., Stern, K., & Isensee, S. (1996). Low vs. high-fidelity prototyping debate. *Interactions*, *3*(1), 76–85. https://doi.org/10.1145/223500.223514

Toms, E. G. (2002). Information interaction: Providing a framework for information architecture. *Journal of the American Society for Information Science and Technology* , *53*(10), 855–862. https://doi.org/10.1002/asi.10094

What is Wireframing: The Complete Guide. (2016, September 25). The Interaction Design Foundation; Interaction Design Foundation. https://www.interaction-design.org/literature/topics/wireframing

Wodtke, C., & Govella, A. (2009). *Information Architecture: Blueprints for the Web* (2nd ed.). New Riders Publishing. https://dl.acm.org/doi/10.5555/1550834

Additional Design Method Collection Links

Here are some links of design method collections (to learn more about prototyping) that can be used for the course:

- Design. Think. Make. Break. Repeat.: http://designthinkmakebreakrepeat.com/
- IDEO: https://www.designkit.org/methods

- Delft Design Guide: Design Strategies and Methods:
https://arl.human.cornell.edu/PAGES_Delft/Delft_Design_Guide.pdf
- Service Design Tools: https://servicedesigntools.org/tools
- Hyper Island Toolbox: https://toolbox.hyperisland.com/
- Ethics-focused Methods Collection: https://everydayethics.uxp2.com/methods/#all

PRATT'S GRADING SCALE

Superior work:	**A** 4.0 (96-100)	**A-** 3.7 (90-95)	
Very good work:	**B+** 3.3 (87-89)	**B** 3.0 (83-86)	**B-** 2.7 (80-82)
Marginally satisfactory:	**C+** 2.3 (77-79)	**C** 2.0 (73-76)	
Failed:	**F** 0.0 (0-72)		

PORTFOLIO

Work completed for this course may be included in your portfolio. For more information on each program's portfolio requirements, please visit the program's respective webpage:

MS Library & Information Science: Portfolio - http://bit.ly/prattmslisportfolio

MS Information Experience Design: Portfolio - http://bit.ly/prattmsixdportfolio2

MS Data Analytics and Visualization: Portfolio - http://bit.ly/prattmsdavportfolio2

MS Museums and Digital Culture: Portfolio - http://bit.ly/prattmsmdcportfolio2

Also, you are encouraged to meet with your advisor about including projects in your portfolio.

COURSE POLICIES

Attendance Policy

Attendance and active participation are essential to successful learning in this course. Typical class sessions will include lectures, discussions, activities, and studio time to work in your project teams that directly inform course assignments. Students are allowed 2 absences for any reason.Documentation is not required, but kindly inform the professor if you know you will be absent prior to class time; which might prepare the instructor to record the class session for your reference at a later time. Kindly coordinate with the professor if you are going to miss a submission of class assignment and can discuss alternatives. Students with long-term health issues, hardships, or emergency situations should discuss their options with the professor. There will be no zoom option for attending class.

Late Assignments and Incompletes

All assignments must be uploaded to Canvas (unless otherwise noted) by the due date. If you are unable to meet a deadline, please discuss your options with the professor prior to the assignment deadline. Any late submissions without discussion with the professor will automatically have late policy as applied on Canvas which is deduction of 3%/day. Incomplete grades can be awarded in cases of medical issues or no-fault hardships. Students requesting an incomplete must notify me to discuss options for completing the work.

Revisions to the Syllabus

While this syllabus provides a reliable framework for the course, it is possible that assigned readings will be added or deleted or that events (guest lectures, etc.) may require changes to the schedule. Any

changes will be informed to the students via Canvas Announcements (make sure your notifications are Switched On for email) and/or announced in class.

Miro

We will be using Miro in this class, and it may be helpful to bring a laptop/tablet to class to access the lecture slides, as well as participate in real-time activities that we will do on Miro. Please note that you will lose access to the Miro boards at the end of the class. Make sure to download/backup your work if you want to save anything from the class.

Documentation Efforts

Documentation is a very essential part of the design process. We go through so many decision making processes and divergence paths; often all of them are very instantaneous.
A project document is NOT your workbook or your designer notes.
A project document is NOT a diary or minutes of a meeting of what happened every week in your process (IoR has the syllabus for it). It is not a slidedeck, either!

Format

A Single PDF. Not a PDF with an external link to another document. **NOTE:** Submission will not be graded if submitting an external link/ pdf with an external link/ directly exported from documentation tools (e.g., Notion) with ill-formatting.

What is expected of a document project or exercise)?

A document is a stand-alone document (not a one page with a link to another working document) that you create to provide an *organized* overview of what you have done and achieved in your design process. This document is something you share outside your own daily documentation with (potentially) following aspects:
- **A Title Page:** Often a cover page with a title (e.g., designing for….), an image that quickly catches attention to what your topic might be about, your name (who are you? What is your name? Are you a grad student?)
- **Table of Contents:** Description of what can be expected of this document and page numbers to quickly jump to that page.
- **Executive Summary Page:** Summary or Abstract of what the project is about or that particular design frame you chose to build for. Why is the reader looking into this document? What can they expect from this document?
- **Synthesis/ Takeaways relevant to Design Conjectures/ Insight:** Synthesis from all the design work you are doing might have to indicate the direction towards your next design steps or conclusion of the current design step. The story does not stop at "I did this….". The story must end at "So what for your design process?"
    - **Use of (adopted/ created) Info-graphics:** Information about design stages or design process to contextualize your work for the readers. This can be about process stages, or infographics you created to easily present your synthesis of research/ design (e.g., empathy maps, annotations, mind maps, images, etc.)
- **Uniform Visual Language:** A set style of heading styles, font, colors, typeface,etc throughout the document to identify the sectioning and for easy reading through the dense document. A suggestion is to set a document style and use it for the rest of the semester.

- **Rationale-focused text and details:** Text oriented with details of what you did, why you did it, what was the result of what you did (success/ failure), who was involved in the process, why did you read or explore a topic, what was your aim, etc. Remember that this is not a slide-deck, but a gateway to your design process and rationale, which is more important than the outcomes themselves.
    - **Story-telling:** Often, the design process is a designer's story. Identify how you want to share that. If there are instances of divergence in your design frame or anything you have totally taken a re-route from, share those stories with your readers.
    - **Balance between Text and Figures:** Too much text is difficult to follow, too little text is also difficult to understand what you have done and achieved. Maintain a balance between text and imagery.
- **Figure and Table Captions:** Proper numbering and captioning of figures and tables to identify the purpose of the figure and table. Plus, proper cross-referencing of the Figure and table numbers in the text. What should be seen in the figure? Did you create the figure/ table? Did you adopt from somewhere?
    - **Figure Annotations:** Clearly annotate a figure to help us identify what we are looking for in a figure.
- **Detailed text and Description| Contextualized for your Topic:** If listed anything as a part of your take-aways from a reading or created as a part of your synthesis, write/ describe through clear text about what that listed item means. Why is it important for your project? How is that relevant? What does it mean? The same word can mean different things for different readers.
- **Links:** Often these should be a part of your reference list, but if you are to link to any videos you have created as a part of your design process, make sure you clearly identify what that video is about in the document and give viewing access.
- **Citations/ References:** Use APA style format to clearly inline cite your sources and create an alphabetical ordered reference list at the end of the document.
- **Appendix:** Identify what becomes a part of the main body of the document and what can be "linked" into the Appendix of a document. For example, details about your observation (what, why, where, how, etc.) can go into the main body of the document, but maybe your detailed observation notes/ field notes, etc. can be linked in the Appendix.

DOCUMENTATION CORRECTIONS (MUST AVOID: Some Common mistakes student make)
Kindly make sure you correct or improve in these aspects of your documentation:
- **Visual Hierarchy:** Clearly make sure your heading 1, heading 2, etc are clearly differentiated through font size, color, numbering, etc.
- **Legibility of Images:** Make sure you use different techniques to make sure your images (affinity mapping, journey/ experience maps, visual libraries, etc.) are clearly readable for the readers. You can either place it in Landscape over a full page/ external "Accessible" links/ magnifying some parts of the image/ annotating the images.
- **If you were to print this?:** Imagine how you would section, visualize, or present the information organization on a page as well as a document level if you were to print this document for someone to read it.
- **PROOFREAD:** Kindly re-read your text for grammatical errors, reducing sentences that do not provide any information, and/or improve the text to avoid lack of information.
- **Re-format your document:** If you are not creating this document from scratch and exporting from your digital workbooks, re-format your documents to avoid the clutter it creates with overflowing text into footers or images dividing over two pages, etc.

Some Resources on Documentation

[My design documentation process](#) | [How to build a design documentation culture from scratch](#) | [Best Practices on Managing Design Documentation](#)

PRATT INSTITUTE-WIDE POLICIES

Academic Integrity Code

Academic integrity at Pratt means using your own and original ideas in creating academic work. It also means that if you use the ideas or influence of others in your work, you must acknowledge them. For more information on Pratt's Academic Integrity Standards, please visit http://bit.ly/prattacademicintegrity.

Students with Disabilities and Accessibility

Pratt Institute is committed to the full inclusion of all students. If you are a student with a disability and require accommodations, please contact the Learning/Access Center (L/AC) at LAC@pratt.edu to schedule an appointment to discuss these accommodations. Students with disabilities who have already registered with the L/AC are encouraged to speak to the professor about accommodations they may need to produce an accessible learning environment.

Requests for accommodation should be made as far in advance as reasonably possible to allow sufficient time to make any necessary modifications to ensure the relevant classes, programs, or activities are readily accessible. The Learning/Access Center is available to Pratt students, confidentially, with additional resources and information to facilitate full access to all campus programs and activities and provide support related to any other disability-related matters.

For more information, please visit http://www.pratt.edu/accessibility/.

Bias, Discrimination and Sexual Misconduct

Pratt Institute seeks to provide an environment that is free of bias, discrimination, and harassment. If you have been the victim of harassment, discrimination, bias, or sexual misconduct, we encourage you to report this.

To report an incident regarding a student, faculty, or staff member, please fill out the Bias, Discrimination & Sexual Misconduct Incident Form (http://bit.ly/pratt_biasform). Submitting an incident report allows the Institute to investigate and take appropriate actions to address your concerns.

If you inform me (your professor) of an issue of harassment, discrimination or bias, or sexual misconduct I will keep the information as private as I can, however, I am required to bring it to the attention of the institution's Title IX Coordinator. You can access Title IX services by emailing titleix@pratt.edu. You can also speak to someone confidentially by contacting our non-mandatory reporters: Health Services at 718-399-4542, Counseling Services 718-687-5356 or Campus Ministries 718-596-4840.

In incidents where you may prefer to place an anonymous report in confidence, you are encouraged to submit reports through EthicsPoint (http://bit.ly/pratt_ethicspoint).

If you have any questions about filing or completing an incident report, please contact the Director of Diversity, Equity, and Inclusion or the Title IX Coordinator, by emailing bias@pratt.edu.

For more information, please refer to the Community Standards webpage: http://bit.ly/prattcommunitystandards.