Required Reading List

This class has two reading lists: a list of required readings, and a list of recommended readings. The required readings will be useful to your assignments and projects, and will also be tested more explicitly on the tests and quizzes. The recommended readings are more generally foundational books, papers, and courses on HCI in general.

Required Reading List

On average, you can expect to spend 1 to 2 hours reading per week. The topics of these papers fall into two categories: some are thorough, retrospective overviews of decades of HCI research; some are foundational, seminal works in the field of HCI; and some are cutting-edge research from the most recent HCI-related conferences and journals.

The information contained in these readings will be useful as you complete your assignments and projects, but it will also be tested explicitly on the course tests and quizzes. Ten questions on each test and one question on each quiz will be based on these readings. From the perspective of these assessments, your emphasis in reading these papers should be in getting a sufficient understanding of the material to answer high-level questions about the paper, as well as to be able to find answers quickly for more specific questions.

The only assessments dependent on having completed these readings are the tests and quizzes, so while we recommend completing the readings alongside the lessons, you need only worry about completing the readings by the date of the corresponding quiz and test.

We recommend reading **How to Read an Academic Paper** (http://omscs6460.gatech.edu/research-guide/how-to-read-an-academic-paper/) from CS6460 to better understand how to fit some of these readings into our estimated 1-2 hours per week.

All readings are also located in the Required Readings folder under Files in Canvas (https://gatech.instructure.com/courses/372906/files) if the links below are broken.

Lesson 1.1 (Introduction to Human-Computer Interaction)	• MacKenzie, I.S. (2013). **Chapter 1: Historical Context** (https://gatech.instructure.com/courses/372906/files/folder/Required%20Reading *Interaction: An Empirical Research Perspective*. (pp. 1-26). Waltham, MA: Elsevier. • Norman, D. (2013). **Chapter 1: The Psychopathology of Everyday Things** (https://gatech.instructure.com/courses/372906/files/folder In *The Design of Everyday Things: Revised and Expanded Edition*. (pp. 1-36). Arizona: Basic Books.
Lesson 1.2 (Introduction to CS6750)	• Joyner, D. (2019). **The CHI of Teaching Online: Blurring the Lines Between User Interfaces and Learner Interfaces** (https://gatech.instructure.com/courses/372906/files/folder/Required%20Readings) . In E. Kapros & M. Koutsombogera (Eds.) *Designing in Learning Systems*, Human-Computer Interaction Series. Springer.
Lesson 1.3 (Exploring HCI)	• N/A: See readings for Unit 4 (all optional)
Lesson 3.1 (Introduction to Methods)	• MacKenzie, I.S. (2013). **Chapter 4: Scientific Foundations** (https://gatech.instructure.com/courses/372906/files/folder/Required%20Re *Computer Interaction: An Empirical Research Perspective*. (pp. 121-152). Waltham, MA: Elsevier.
Lesson 3.2 (Ethics and Human Research)	• Hallinan, B., Brubaker, J. R., & Fiesler, C. (2020). **Unexpected expectations: Public reaction to the Facebook emotional contagio** (https://gatech.instructure.com/courses/372906/files/47258577/download) . *New Media & Society*, *22*(6), 1076-1094.
Lesson 3.3 (Needfinding and Requirements Gathering)	• Müller, H., Sedley, A., & Ferrall-Nunge, E. (2014). **Survey research in HCI** (https://pdfs.semanticscholar.org/9fa9/7b46cb3e537ed97a47c935733821d44c9dfd.pdf#page=235) . In J. Olson & W. Kellogg (Eds.) *Ways c* 229-266). New York: Springer.
Lesson 2.1 (Introduction to Principles)	• Norman, D. A. (1986). **Cognitive engineering** (https://www.semanticscholar.org/paper/Cognitive-Engineering-Ananthasayanam/57f176992f92ae559d9c110211d7f04c5143cb44) . In D. A. Norman & S. W. Draper (Eds.) *User-Centered System Design Human-Computer Interaction*. (pp. 32-61). Hillsdale, NJ: Lawrence Erlbaum Associates.
Lesson 2.2 (Feedback Cycles)	• Norman, D. (2013). **Chapter 2: The Psychology of Everyday Actions** (https://gatech.instructure.com/courses/372906/files/folder/Requ *The Design of Everyday Things: Revised and Expanded Edition*. (pp. 37-73). Arizona: Basic Books.
Lesson 3.4 (Design Alternatives)	• Faste, H., Rachmel, N., Essary, R., & Sheehan, E. (2013, April). **Brainstorm, Chainstorm, Cheatstorm, Tweetstorm: new ideation s distributed HCI design** (http://henrybacondesign.com/wp-content/uploads/2017/02/Brainstorm_Chainstorm_Cheatstorm_Tweetst.pdf) *SIGCHI Conference on Human Factors in Computing Systems* (pp. 1343-1352). ACM. • Rogers, Y., Sharp, H., & Preece, J. (2011). **Chapter 6: The Process of Interaction Design** (http://www.wiley.com/legacy/wileychi/interactiondesign/pdf/ID_ch6.pdf) . In *Interaction Design: Beyond Human-Computer Interaction*. Jo
Lesson 2.3 (Direct Manipulation &	• Hutchins, E. L., Hollan, J. D., & Norman, D. A. (1985). **Direct manipulation interfaces** (http://citeseerx.ist.psu.edu/viewdoc/downloa doi=10.1.1.122.4927&rep=rep1&type=pdf) . *Human–Computer Interaction*, *1*(4), 311-338.

Invisible Interfaces)	
Lesson 2.4 (Human Abilities)	• MacKenzie, I.S. (2013). **Chapter 2: The Human Factor** (https://gatech.instructure.com/courses/372906/files/folder/Required%20Reading *Interaction: An Empirical Research Perspective*. (pp. 27-66). Waltham, MA: Elsevier.
Lesson 3.5 (Prototyping)	• Houde, S., & Hill, C. (1997). **What do prototypes prototype?** (http://www.itu.dk/people/malmborg/Interaktionsdesign/Kompendie/Ho Helandar, T.K. Landaeur, & P. Prabhu (Eds). *Handbook of Human-Computer Interaction*, *2.* (pp. 367-381). Elsevier Science. • Beaudouin-Lafon, M., & Mackay, W. (2003). **Prototyping tools and techniques** (https://www.lri.fr/~mackay/pdffiles/Prototype.chapt *Computer Interaction-Development Process.* (pp. 101-142).
Lesson 2.5 (Design Principles & Heuristics)	• Norman, D. A. (2005). **Human-centered design considered harmful** (https://dl.acm.org/doi/pdf/10.1145/1070960.1070976) . *interacti*
	END OF MATERIAL FOR TEST 1
Lesson 3.6 (Evaluation)	• MacKenzie, I.S. (2013). **Chapter 5: Designing HCI Experiments** (https://gatech.instructure.com/courses/372906/files/folder/Required% *Computer Interaction: An Empirical Research Perspective*. (pp. 157-188). Waltham, MA: Elsevier. • Nielsen, J., & Molich, R. (1990, March). **Heuristic evaluation of user interfaces** (https://pdfs.semanticscholar.org/501e/496146b04f42e3e6a49aabd29fb909083007.pdf) . In *Proceedings of the SIGCHI Conference on Hur Computing Systems* (pp. 249-256). ACM. • Polson, P. G., Lewis, C., Rieman, J., & Wharton, C. (1992). **Cognitive walkthroughs: a method for theory-based evaluation of use** (http://sonify.psych.gatech.edu/~ben/references/polson_cognitive_walkthroughs_a_method_for_theory-based_evaluation_of_user_interfa *Journal of Man-Machine Studies*, *36*(5). (pp. 741-773).
Lesson 2.6 (Mental Models & Representations)	• MacKenzie, I.S. (2013). **Section 3.4: Mental Models & Metaphor** (https://gatech.instructure.com/courses/372906/files/folder/Required% *Computer Interaction: An Empirical Research Perspective*. (pp. 88-92). Waltham, MA: Elsevier. • MacKenzie, I.S. (2013). **Section 3.8: Interaction errors** (https://gatech.instructure.com/courses/372906/files/folder/Required%20Readin *Interaction: An Empirical Research Perspective*. (pp. 111-116). Waltham, MA: Elsevier. • Norman, D. (2013). **Chapter 5: Human Error? No, Bad Design** (https://gatech.instructure.com/courses/372906/files/folder/Required%2 *Design of Everyday Things: Revised and Expanded Edition*. (pp. 162-216). Arizona: Basic Books.
Lesson 2.7 (Task Analysis)	• West, R. L., Wong, A., & Vera, A. H. (2022, May). **GOMS, distributed cognition, and the knowledge structures of organizations** (https://gatech.instructure.com/courses/372906/files/47258669/download) . In *Proceedings of the Twentieth Annual Conference of the Co* (pp. 1124-1129). Routledge.
Lesson 3.7 (HCI & Agile Development)	• Wania, C. E., Atwood, M. E., & McCain, K. W. (2006, June). **How do design and evaluation interrelate in HCI research?** (https://idea.library.drexel.edu/islandora/object/idea%3A1285/datastream/OBJ/view) In *Proceedings of the 6 Conference on Designing Int* 90-98). ACM. • Chamberlain, S., Sharp, H., & Maiden, N. (2006). **Towards a framework for integrating agile development and user-centered des** (https://www.ime.usp.br/~marivb/ihc3.pdf) . In *Proceedings of the 4 International Conference on Extreme Programming and Agile Proce Engineering.* (pp. 143-153). Springer.
Lesson 3.8 (Conclusion to Methods and Best of Georgia Tech HCI)	• Liu, Z., Nersessian, N., & Stasko, J. (2008). **Distributed cognition as a theoretical framework for information visualization** (https://gatech.instructure.com/courses/372906/files/folder/Required%20Readings) . *IEEE Transactions on Visualization and Computer G* 1173-1180). • Kidd, C., Orr, R., Abowd, G., Atkeson, C., Essa, I., MacIntyre, B., Mynatt, E., Starner, T. & Newstetter, W. (1999). **The aware home: A ubiquitous computing research** (https://pdfs.semanticscholar.org/8497/7e60f53aa244c20e663451003c5420d4bfb1.pdf) . In N. Streitz, Burkhardt (Eds.) *Cooperative Buildings: Integrating Information, Organizations, and Architecture* (pp. 191-198). • Hu, A., Chancellor, S., & De Choudhury, M. (2019). **Characterizing Homelessness Discourse on Social Media** (https://dl.acm.org/doi/pdf/10.1145/3290607.3313057?casa_token=nvu-XvMVZK0AAAAA:S96OgFkwg6CcAZiwO5FDzyxYiLmgni-IjJPVDrSPVDSX0iZhh_TPxCSXJAibW_e3wt2H-M_bj5k) . In *Extended Abstracts of the 2019 CHI Conference on Human Factors in Comp* • Kozubaev, S., Rochaix, F., DiSalvo, C., & Le Dantec, C. (2019). **Spaces and Traces: Implications of Smart Technology in Public H** (https://dl.acm.org/citation.cfm?doid=3290605.3300669) . In *Proceedings of the 2019 CHI Conference on Human Factors in Computing S* • Shahmiri, F., Chen, C., Waghmare, A., Zhang, D., Mittal, S., Zhang, S., Wang, Y., Wang, Z., Starner, T., & Abowd, G. (2019). **Serpentin Reversibly Deformable Cord Sensor for Human Input** (https://dl.acm.org/citation.cfm?doid=3290605.3300775) . In *Proceedings of Conference on Human Factors in Computing Systems*. ACM.
Lesson 2.8 (Distributed Cognition)	• Hutchins, E. (1995). **How a cockpit remembers its speeds** (http://www.it.uu.se/grad/courses/qualresearch/teachingplan/hutchins.pd *19*(3). (pp. 265-288). • Nardi, B. (1992). **Studying context: A comparison of activity theory, situated action models and distributed cognition** (http://sonify.psych.gatech.edu/~ben/references/nardi_studying_context_a_comparison_of_activity_theory_situated_action_models_and_ . In B. Nardi (Ed.) *Context and Consciousness: Activity Theory and Human-Computer Interaction*. (pp. 35-52). MIT Press.
Lesson 2.9 (Interfaces and Politics)	• Winner, L. (1980). **Do Artifacts Have Politics?** (https://www.researchgate.net/profile/Langdon_Winner/publication/213799991_Do_Artifacts_Have_Politics/links/00463537cb2c4e45b80000 Politics.pdf) In *Daedalus 109*(1). (pp. 121-136). MIT Press. • Cowan, R. S. (1976). **The "industrial revolution" in the home: Household technology and social change in the 20 century** (https://hss.sas.upenn.edu/sites/hss.sas.upenn.edu/files/Industrial%20Revolution%20in%20the%20Home.pdf) . *Technology and Culture 1* Hopkins University Press. • Friedman, B., Kahn Jr, P. H., Borning, A., & Huldtgren, A. (2013). **Value Sensitive Design and Information Systems** (http://vsdesign.org/publications/pdf/friedman__vsdesignandinfosys.pdf) . In P. Zhang & D. Galletta (Eds.) *Human-Computer Interaction Information Systems: Foundations.* New York: M.E. Sharpe, Inc.

Lesson 2.10 (Conclusion to Principles and Best of CHI)	• Kuo, T. S., Shen, H., Geum, J., Jones, N., Hong, J. I., Zhu, H., & Holstein, K. (2023, April). **Understanding Frontline Workers' and U Perspectives on AI Used in Homeless Services** (https://programs.sigchi.org/chi/2023/program/content/96424) . In *Proceedings of t Conference on Human Factors in Computing Systems* (pp. 1-17). • Hämäläinen, P., Tavast, M., & Kunnari, A. (2023, April). **Evaluating large language models in generating synthetic hci research da** (https://programs.sigchi.org/chi/2023/program/content/95751) . In *Proceedings of the 2023 CHI Conference on Human Factors in Compu* 19). • Sterman, S., Nicholas, M. J., Vivrekar, J., Mindel, J. R., & Paulos, E. (2023, April). **Kaleidoscope: A Reflective Documentation Tool Design Course** (https://programs.sigchi.org/chi/2023/program/content/96411) . In *Proceedings of the 2023 CHI Conference on Huma Systems* (pp. 1-19). • Chordia, I., Tran, L. P., Tayebi, T. J., Parrish, E., Erete, S., Yip, J., & Hiniker, A. (2023, April). **Deceptive Design Patterns in Safety Te Study of the Citizen App** (https://programs.sigchi.org/chi/2023/program/content/96441) . In *Proceedings of the 2023 CHI Conferenc Computing Systems* (pp. 1-18). • Salehzadeh Niksirat, K., Goswami, L., SB Rao, P., Tyler, J., Silacci, A., Aliyu, S., … & Cherubini, M. (2023, April). **Changes in Researc and Transparency in Empirical Studies between CHI 2017 and CHI 2022** (https://programs.sigchi.org/chi/2023/program/content/9 *of the 2023 CHI Conference on Human Factors in Computing Systems* (pp. 1-23). • Alfrink, K., Keller, I., Doorn, N., & Kortuem, G. (2023, April). **Contestable Camera Cars: A Speculative Design Exploration of Publi Responsive to Dispute** (https://programs.sigchi.org/chi/2023/program/content/96087) . In *Proceedings of the 2023 CHI Conference Computing Systems* (pp. 1-16).
	END OF MATERIAL FOR TEST 2

Recommended Reading List

HCI is a huge field, and there's always more to read; in addition to the required papers and chapters above, there are also several books, other papers, and other courses online that we recommend checking out. None of these are tested explicitly in any work required for the class, but they would certainly benefit both your work here as well as your future pursuits.

Books

The following books are seminal HCI literature and could be read in parallel to any course material.

- **The Design of Everyday Things** (https://smile.amazon.com/Design-Everyday-Things-Revised-Expanded/dp/0465050654/ref=sr_1_1?ie=UTF8&qid=1471354100&sr=8-1&keywords=design+of+everyday+things) by Don Norman
- **The Inmates Are Running the Asylum** (https://smile.amazon.com/Inmates-Are-Running-Asylum-Products/dp/0672326140/ref=sr_1_1?ie=UTF8&qid=1471354232&sr=8-1&keywords=the+inmates+are+running+the+asylum) by Alan Cooper
- **Human-Computer Interaction** (https://smile.amazon.com/Human-Computer-Interaction-3-Alan-Dix/dp/0130461091/ref=sr_1_1?ie=UTF8&qid=1471354117&sr=8-1&keywords=Human-Computer+Interaction+by+Alan+Dix%2C+Janet+Finlay%2C+Gregory+Abowd%2C+and+Russell+Beale) by Alan Dix, Janet Finlay, Gregory Abowd, and Russell Beale
- **Interaction Design: Beyond Human-Computer Interaction** (https://smile.amazon.com/Interaction-Design-Beyond-Human-Computer/dp/1119020751/ref=sr_1_1?ie=UTF8&qid=1471354150&sr=8-1&keywords=Interaction+Design%3A+Beyond+Human-Computer+Interaction) by Yvonne Rogers, Jelen Sharp, and Jenny Preece
- **Designing with the Mind in Mind** (https://smile.amazon.com/Designing-Mind-Second-Understanding-Guidelines/dp/0124079148/ref=sr_1_1?ie=UTF8&qid=1471354174&sr=8-1&keywords=Designing+with+the+Mind+in+Mind) by Jeff Johnson
- **Observing the User Experience: A Practitioner's Guide to User Research** (https://smile.amazon.com/Observing-User-Experience-Second-Practitioners/dp/0123848695/ref=sr_1_1?ie=UTF8&qid=1471354188&sr=8-1&keywords=Observing+the+User+Experience%3A+A+Practitioner%27s+Guide+to+User+Research) by Elizabeth Goodman, Mike Kuniavsky, and Andrea Moed
- **Research Methods in Human-Computer Interaction** (https://smile.amazon.com/Research-Methods-Human-Computer-Interaction-Jonathan/dp/0470723378/ref=sr_1_1?ie=UTF8&qid=1471354200&sr=8-1&keywords=Research+Methods+in+Human-Computer+Interaction) by Jonathan Lazar, Jinjuan Heidi Feng, and Harry Hochheiser
- **Understanding Your Users: A Practical Guide to User Requirements Methods, Tools, and Techniques** (https://www.amazon.com/Understanding-Your-Users-Requirements-Technologies/dp/1558609350/ref=sr_1_1?ie=UTF8&qid=1514398444&sr=8-1) by Catherine Courage and Kathy Baxter
- **Tools for Thought** (http://rheingold.com/texts/tft/) by Howard Rheingold

Papers

In addition to these books, there are several excellent readings that complement specific lessons or concepts from HCI. Many of these papers will be discussed during those lessons, but we have also provided a **list of recommended papers** (https://docs.google.com/spreadsheets/d/1MnXmRSmiIcNBb1FIvENWoKLBBTL9Jk68KhYjMhHzTZE/edit?usp=sharing) and their corresponding lessons and topics. Where available, links go to the paper; if a link is not available, you should be able to locate the paper through the **Georgia Tech library** (http://library.gatech.edu/) or, if noted, the Files folder on Canvas.

Courses

There are also a number of high-quality courses offered by other instructors and institutions that may be of interest to further developing your knowledge of HCI.

- **Intro to Design of Everyday Things** (https://www.udacity.com/course/intro-to-the-design-of-everyday-things--design101) from UC-San Diego's Don Norman (on Udacity)
- **Introduction to User Experience Design** (https://www.coursera.org/learn/user-experience-design) from Georgia Tech's Rosa Arriaga (on Coursera)
- **UX Design** (https://www.edx.org/xseries/ux-design) from the University of Michigan's Mark Newman (on EdX)
- **Interaction Design Specialization** (https://www.coursera.org/specializations/interaction-design) from UC-San Diego's Scott Klemmer, Elizabeth Gerber, and Jason Wobbrock (on Coursera)
- **UI Design Specialization** (https://www.coursera.org/specializations/user-interface-design) from the University of Minnesota's Lana Yarosh, Haiyi Zhu, Loren Terveen, Joseph Konstan, and Brent Hecht
- **UX Design for Mobile Developers** (https://www.udacity.com/course/ux-design-for-mobile-developers--ud849), **Rapid Prototyping** (https://www.udacity.com/course/rapid-prototyping--ud723), and Product Design from Google (on Udacity)
- **The Interaction Design Foundation** (https://www.interaction-design.org/), home to dozens of classes on interaction design