The UC Berkeley EECS HCI Preliminary exam is an oral exam that PhD students are required to take after their first year of graduate school in EECS at UC Berkeley. The exam will test your knowledge across a range of research literature detailed below. During the exam you may be asked to explain the central concepts, describe why the paper made certain tradeoffs, integrate several readings in a response to a question, or provide a higher-level explanation of a research area across several papers. In the case of methodological readings, you may be asked to work through a hypothetical design or analyze a scenario. Students taking the HCI Prelim Examination will be responsible for having a deep working knowledge of the literature below and be able to formulate arguments, positions, and situate the work within an historical context. Exam questions will be scoped across the following material (listed by date of publication):

Pre-1980

- Bush, Vannevar (1945). "As We May Think," Atlantic Monthly 176 (July 1945) pp. 101-108. (PDF)

1980

- Stuart K. Card, Allen Newell, and Thomas P. Moran. 1983. The Psychology of Human-Computer Interaction. L. Erlbaum Assoc. Inc., Hillsdale, NJ, USA. (Chapter 2 The Model Human Processor).
- Kiesler, S., Siegel, J., & McGuire, T. W. (1984). Social psychological aspects of computer-mediated communication. American Psychologist, 39(10), 1123-1134. http://dx.doi.org/10.1037/0003-066X.39.10.1123
- Edwin L. Hutchins, James D. Hollan & Donald A. Norman (1985) Direct Manipulation Interfaces, Human–Computer Interaction, 1:4, 311-338, DOI: 10.1207/s15327051hci0104_2
- Winograd, Terry, and Fernando Flores. Understanding computers and cognition: A new foundation for design. Chapters 2, 3, 6. Vol. 335. Norwood, NJ: Ablex publishing corporation, 1986.

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- Weiser, M. (1991). Scientific American. The Computer for the 21st Century.(Sept. 1991), 94-104.

- Jim Hollan and Scott Stornetta. 1992. Beyond being there. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '92), Penny Bauersfeld, John Bennett, and Gene Lynch (Eds.). ACM, New York, NY, USA, 119-125. DOI: https://doi.org/10.1145/142750.142769
- Donald Schön, "Designing as Reflective Conversation with the Materials of a Design Situation", *Knowledge-Based Systems*, Vol 5 Issue 1. 1992. https://doi.org/10.1016/0950-7051(92)90020-G (https://www.sciencedirect.com/science/article/pii/095070519290020G)
- Steven Feiner, Blair Macintyre, and Dorée Seligmann. 1993. Knowledge-based augmented reality. Commun. ACM 36, 7 (July 1993), 53-62. DOI= http://dx.doi.org/10.1145/159544.159587
- Pierre Wellner. 1993. Interacting with paper on the DigitalDesk. Commun. ACM 36, 7 (July 1993), 87-96. DOI=http://dx.doi.org/10.1145/159544.159630
- Jonathan Grudin. 1994. Groupware and social dynamics: eight challenges for developers. Commun. ACM 37, 1 (January 1994), 92-105. DOI=http://dx.doi.org/10.1145/175222.175230
- Nielsen, How to Conduct a Heuristic Evaluation and 10 Usability Heuristics. (Jan 1995)
- Beyer, H., & Holtzblatt, K. (1997). Contextual design: defining customer-centered systems. Elsevier. (Ch 3: Principles of Contextual Inquiry)
- Hiroshi Ishii and Brygg Ullmer. 1997. Tangible bits: towards seamless interfaces between people, bits and atoms. In Proceedings of the ACM SIGCHI Conference on Human factors in computing systems (CHI '97). ACM, New York, NY, USA, 234-241. DOI=http://dx.doi.org/10.1145/258549.258715
- Doug A. Bowman and Larry F. Hodges. 1997. An evaluation of techniques for grabbing and manipulating remote objects in immersive virtual environments. In Proceedings of the 1997 symposium on Interactive 3D graphics (I3D '97). Association for Computing Machinery, New York, NY, USA, 35–ff. DOI:https://doi.org/10.1145/253284.253301
- Card, Mackinlay. Readings in information visualization: using vision to think. Morgan Kaufmann, 1999. Chapter 1: Information Visualization.
- Eric Horvitz. 1999. Principles of mixed-initiative user interfaces. In Proceedings of the SIGCHI conference on Human Factors in Computing Systems (CHI '99). ACM, New York, NY, USA, 159-166. DOI=http://dx.doi.org/10.1145/302979.303030

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- W. Keith Edwards and Rebecca E. Grinter. 2001. At Home with Ubiquitous Computing: Seven Challenges. In Proceedings of the 3rd international conference on Ubiquitous Computing (UbiComp '01), Gregory D. Abowd, Barry Brumitt, and Steven A. Shafer (Eds.). Springer-Verlag, Berlin, Heidelberg, 256-272.
- Paul Dietz and Darren Leigh. 2001. DiamondTouch: a multi-user touch technology. In Proceedings of the 14th annual ACM symposium on User interface software and technology (UIST '01). ACM, New York, NY, USA, 219-226. DOI=http://dx.doi.org/10.1145/502348.502389
- Carroll, J. (2003). HCI models, theories, and frameworks : toward a multidisciplinary science. San Francisco, Calif: Morgan Kaufmann (Chapter 7 "Exploring and Finding Information" by Peter Pirolli.)
- Eric Paulos and Elizabeth Goodman. 2004. The familiar stranger: anxiety, comfort, and play in public places. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems(CHI '04). ACM, New York, NY, USA, 223-230. DOI= http://dx.doi.org/10.1145/985692.985721
- Ko, A. J. Myers, B. A., and Aung, H. (2004). Six Learning Barriers in End-User Programming Systems. IEEE Symposium on Visual Languages and Human-Centric Computing, Rome, Italy, September 26-29, 199-206. https://doi.org/10.1109/VLHCC.2004.47

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- Scott R. Klemmer, Björn Hartmann, and Leila Takayama. 2006. How bodies matter: five themes for interaction design. In Proceedings of the 6th conference on Designing Interactive systems (DIS '06). ACM, New York, NY, USA, 140-149. DOI: https://doi.org/10.1145/1142405.1142429
- Martin, D. W. (2007). Doing psychology experiments. Cengage Learning. (Chapter 2 and Chapter 12)
- Ben Shneiderman. 2007. Creativity support tools: accelerating discovery and innovation. Commun. ACM 50, 12 (December 2007), 20-32. DOI=http://dx.doi.org/10.1145/1323688.1323689

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- Sunny Consolvo, David W. McDonald, Tammy Toscos, Mike Y. Chen, Jon Froehlich, Beverly Harrison, Predrag Klasnja, Anthony LaMarca, Louis LeGrand, Ryan Libby, Ian Smith, and James A. Landay. 2008. Activity sensing in the wild: a field trial of ubifit garden. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '08). ACM, New York, NY, USA, 1797-1806. DOI: https://doi.org/10.1145/1357054.1357335
- Saul Greenberg and Bill Buxton. 2008. Usability evaluation considered harmful (some of the time). In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '08). Association for Computing Machinery, New York, NY, USA, 111–120. DOI:https://doi.org/10.1145/1357054.1357074
- Paul M. Aoki, R. J. Honicky, Alan Mainwaring, Chris Myers, Eric Paulos, Sushmita Subramanian, and Allison Woodruff. 2009. A vehicle for research: using street sweepers to explore the landscape of environmental community action. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '09). ACM, New York, NY, USA, 375-384. DOI: https://doi.org/10.1145/1518701.1518762
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- Michael S. Bernstein, Greg Little, Robert C. Miller, Björn Hartmann, Mark S. Ackerman, David R. Karger, David Crowell, and Katrina Panovich. 2010. Soylent: a word processor with a crowd inside. In Proceedings of the 23nd annual ACM symposium on User interface software and technology (UIST '10). ACM, New York, NY, USA, 313-322. DOI: https://doi.org/10.1145/1866029.1866078
- The Design of Search User Interfaces, Marti Hearst, 2010. Chapter 1 from Search User Interfaces.

- Neil Patel, Deepti Chittamuru, Anupam Jain, Paresh Dave, and Tapan S. Parikh. 2010. Avaaj Otalo: a field study of an interactive voice forum for small farmers in rural India. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '10). ACM, New York, NY, USA, 733-742. DOI: https://doi.org/10.1145/1753326.1753434
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- Sebastian Linxen, Christian Sturm, Florian Brühlmann, Vincent Cassau, Klaus Opwis, and Katharina Reinecke. 2021. How WEIRD is CHI? In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). Association for Computing Machinery, New York, NY, USA, Article 143, 1–14. https://doi.org/10.1145/3411764.3445488
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