

EECS 498/598: Computer Science Education Research

MW 1:30-3 in EECS 1005



What do people think goes on inside a computer?

How do people learn to program? Why is it so hard for so many? How can we make it easier?

Why should anyone learn programming, other than to become a software developer?

Why is there so little diversity in the Tech industry?

How do researchers get answers to these questions?

Researchers in computing education explore how people come to understand computation, and how to improve that process. In this course, we will review the literature on computing education, and learn the research methods used in the field. Students will read research papers, discuss and critique them, write summaries of research findings, design a research study, and prepare an NSF-style proposal.

Course Overview: Introduction to computing education research (CER). History and influential early work. Design of research studies in CER, including Multi-Institutional Multi-National, laboratory, and classroom studies. Grounding in theory from learning sciences, educational psychology, science education, and HCI.

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