

CS146: Computer Architecture

Fall 2019

Instructor: Prof. David Brooks, MD141, dbrooks@eecs.harvard.edu

Course Teaching Fellow: Iulian Brumar, MD308, ibrumar@g.harvard.edu

Meeting Times: Monday/Wednesday 1:00-2:30PM in Maxwell-Dworkin G135

Course Website: <http://www.eecs.harvard.edu/cs146-246>

Office Hours: Monday/Wednesday 11:00AM-Noon and by appointment

Prerequisites: CS 141 (Computing Hardware) or equivalent, UNIX, C Programming

Approximate Schedule:

- Introduction and Performance Metrics (1 week)
- ISA/Basic Pipelining Review (1 week)
- Hardware ILP (2 weeks)
- Software ILP (1 week)
- Caches/Memory (1.5 weeks)
- Modern Processor Case Studies (1.5 weeks)
- Multiprocessors/Multithreading (1-2 weeks)
- Research Trends (1-2 weeks)
- Technology Trends impact on architecture (1-2 weeks)

Grade Formula (+/- 5%)

- Homework and Programming Assignments – 20%
- Midterm – 25%
- Final – 30%
- Project – 25%

Homeworks: 5-6 assignments throughout the semester, combination of paper/pencil and programming exercises

Exams: In-class, closed book Midterm (tentatively November 11). Covers all material up to that time. Final exam covers all material in the class.

Project: More details later...