CSE 240: PRINCIPLES in COMPUTER ARCHITECTURE

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1. FUNDAMENTALS of COMPUTER DESIGN

2. INSTRUCTION SET PRINCIPLES

3 PIPELINING

4 ADVANCED PIPELINING and INSTRUCTION LEVEL PARALLELISM
   Instruction Level Parallelism. Dynamic Scheduling. Dynamic Hardware Prediction. Multiple Issue. Compiler Support for Increased ILP. Hardware Support for Increased ILP.

5. MEMORY-HIERARCHY DESIGN
   Caches. Reducing Cache Misses, Miss Penalty, Hit Time. Main Memory. Virtual Memory.

6 I/O