

Computer Architecture General Exam: Study Guide

The general exam will be primarily based on the materials from CSC 7080. The textbook, lecture notes, and other sources used for this class are expected to be helpful. This study guide lists the relevant topics, which are covered by the following book (although they can also be found in other books):

Computer Architecture: A Quantitative Approach, Fourth Edition, John Hennessy and David Patterson

Relevant Topics:

Chapter 1: Fundamentals of Computer Design

Chapter 2: Instruction Level Parallelism and Its Exploitation

Chapter 3: Advanced Techniques for Exploiting Instruction-Level Parallelism and Their Limits

Chapter 4: Multiprocessors and Thread-Level Parallelism

Chapter 5: Memory Hierarchy Design

Appendix A: Pipelining: Basic and Intermediate Concepts

Appendix B: Instruction Set Principles and Examples