

Computer Architecture

CS 5504

Syllabus

Instructor: Dr. Kirk W. Cameron
cameron@cs.vt.edu

Meeting Time: TR 12:30 pm – 1:45 pm, Place: MCB 322

Office Hours: TR 10:45 am – 12:30 pm Place: MCB 614
...and by appointment

TA: Michael Narayan

TA's Office Hours: MW 4:00 pm – 6:00 pm Place: MCB 133
...and by appointment

Class home page: <http://people.cs.vt.edu/~cameron/cs5504.html>

Required Text: Computer Architecture: A Quantitative Approach 3rd Ed.
Hennessy and Patterson, Morgan Kaufman, 2003.

Recommend Text: Computer Organization and Design: The Software/Hardware Interface 2nd Ed.
Patterson and Hennessey, Morgan Kaufman, 1998.

Grading:

- 30% Midterm Exam
- 15% Individual Presentation
- 35% Team Research Project
- 15% Team Research Presentation
- 5% Paper Reviews

Exams:

No makeup exams will be given without documented excuse. Exams will be closed book. A crib sheet will be allowed during the exam and will be discussed later in the course.

Homework problems:

Homework problems will be assigned but not collected or graded. Their purpose is to illustrate concepts, facilitate discussion, and prepare students for examination. Solutions to selected exercises are found in Appendix B of the text. Students are expected to accomplish homework in a timely fashion.

Supplementary readings and presentations:

A reading list will be provided on the web site. Students are responsible for material in all readings assigned even if not covered in lecture. Students will be assigned papers for individual presentation to the class during the semester. These will be short overviews of the papers. All students will be expected to review all papers and presentations in written form.

Team Research Projects

Students will be divided into teams to conduct research projects related to the course. Team assignments and size will be at the sole discretion of the instructor. Teams will write a technical report describing the research and give a presentation describing results.

Academic Responsibility

Rules and regulations are clear. Your work must be your own. Cheating in any form will not be tolerated. Questionable behavior should be brought to the attention of the instructor immediately. Students found guilty of academic dishonesty will receive an F in the course and be recommended for academic discipline at the department and university levels. YOU are responsible for reading information regarding your academic responsibility. It is your responsibility to seek clarification from the instructor PRIOR to engaging in activities of a questionable academic nature.

Course Topics

Design methodology, Instruction set architecture, Memory organization, Instruction-level parallelism
Advanced architecture topics