

Computer Organization

CS 4504

Syllabus

Instructor:	Dr. Kirk W. Cameron cameron@cs.vt.edu	
Meeting Time:	TR 9:30 am – 10:45 am,	Place: MCB 224
Office Hours:	TR 10:45 am – 12:30 pm ...and by appointment	Place: MCB 614
TA:	Leon Shuwaien	
TA's Office Hours:	M 9:00 a.m. – 1:00 p.m. ...and by appointment	Place: TBD
Class home page:	http://people.cs.vt.edu/~cameron/cs4504.html	
Required Text:	Computer Architecture: A Quantitative Approach 3 rd Ed. Hennessy and Patterson, Morgan Kaufman, 2003.	
Recommend Text:	Computer Organization and Design: The Software/Hardware Interface 2 nd Ed. Patterson and Hennessey, Morgan Kaufman, 1998.	
Grading:	25% Midterm Exam 35% Final Exam 35% Projects (Project #1 10%, Project #2 10%, Project #3 15%) 5% Participation	
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. Final examination must be taken on the scheduled date. Any student that fails the final exam may receive an F in the course at the instructor's discretion.

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:

A reading list will be provided on the web site and updated periodically. Students are responsible for material in all readings assigned even if not covered in lecture.

Class Projects

There will be three projects totaling a significant portion of student grades (35%). The purpose of these projects is to illustrate practical application of techniques learned in the course. All projects will be discussed in detail later in the course.

Pop Quizzes

Periodically throughout the semester, 5-minute unannounced quizzes will be given at the start of class. Some will be analytical puzzles unrelated to Computer Architecture, designed to make you think analytically as you prepare for technical interviews upon graduation. Some will be questions from the homework problems and assigned readings to aid in exam preparation. Such quizzes will be given promptly at the start of class. Students arriving late will miss the opportunity to take the quiz once they have been handed out. No make-up quizzes will be given.

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
Intro to advanced architecture topics