Computer Architecture

CS 470

Introduction

Yashwant K. Malaiya
Colorado State University

Course Syllabus

- **Instructor: Yashwant K. Malaiya**
  malaiya @ cs.colostate.edu
  Office: 356 CSB W 4 :10-5 PM, F 10 :10-11AM
- **GTA: Athith Amarnath**
  athith.amarnath @ colostate.edu
- **Hours: TBD**

CS470

- **Prerequisites: CS270, CS 370**
- **Text:** Patterson & Hennessy*, Computer Organization & Design: The Hardware/Software Interface,* 5th ed.
  - **Some material will be taken from recent publications and other sources.**
- **Homework/Labs:**
  - **Use of simulation at the logic level and some will use a machine/assembly level simulator.**
- **Tests:** There will be one midterm and a comprehensive Final Exam.
- **Quizzes,** about twelve, mostly on canvas, but some may in the class, may be unannounced.
- **Term project :** Proposal (1-page): March 21, progress report: April 11, final report May 4.
  - **A short presentation powerpoint presentation will be required as scheduled.**

Grading

Element	Date	Weight
Midterm	March 10	20%
Final exam	May 8	25%
Homework & programs	as assigned	about 18%
Quizzes	In-class or on-line	about 18%
Term Project	Due on 5/4/17	15%
Participation		4%

Policies

- **Assignments are due on the due date at the start of class, or by the time specified if electronic submission using RAMCT is required.**
- **You may turn assignments in up to 24 hours late for a 20% penalty. No credit will be given after that. In some cases, there may be no late period.**
- **If you will not be able to take an exam or make an assignment deadline due to an exceptional reason that can be documented, you must request the instructor in advance for possible alternative arrangements.**
- **Policies on cheating, plagiarism, incomplete grades, attendance, discrimination, sexual harassment, and student grievances are described in the Student Information Guide. This course will adhere to the CSU Academic Integrity Policy as found in the General Catalog and the Student Conduct Code.**
- **Students are expected to be on time to class and stay until the class is complete, silence cell phones, to be alert and attentive and to use laptops only for class purposes.**

Topics

- Review of logic design basics
- Computer Performance and Trends
- Assembly language programming
- Computer Arithmetic
- Central Processing Unit
- Paralleism for enhanced performance
- Memory Hierarchy
- Storage and IO
- Mutiple processor systems