CSCE 2610: Computer Organization

You May Want To Know

My Name: Krishna M. Kavi
My Office: F279 Discovery Park
My Phone Number: 940-369-7216
My Office Hours: M 3-5pm; F 10-12am
(Other times by appointment)
My Email: Krishna.kavi@unt.edu
My URL: http://csrl.cse.unt.edu/~kavi

Tentative Breakdown Of Course Grade

Assignments 15%
Programming Labs 15%
Pop Quizzes 10%
2 Exams 30%
Final 25%
Discretion 5%

Remarks.

1. Assignments consist of problems mostly from the textbook.
2. Programming assignments involve ARM assembly language programming.
3. While grading examinations (including final), I grade one problem at a time. That is, I read through each student’s answer for a problem, give the highest score (need not be the maximum) to the best solution, and assign scores for the rest based on how well their solution compares with the best.
4. The instructor reserves the right to modify course policies, the course contents and the order in which the topics are covered.
5. All students will be trusted to pursue their academic careers with honesty and integrity. Academic dishonesty includes, but not limited to, cheating on a test or other course work, plagiarism, unauthorized collaboration with other persons. Students found guilty of dishonesty will be subject to penalties that may include suspension from the university.
CSCE 2610: Course Outline
(Krishna Kavi)

I. Introduction and Background (PH: 1)  
   - Computer abstractions
   - Below your program
   - The Big picture
   - Performance
   - Digital Logic
   
II. Instruction Sets and Assembly Language Programming (PG: 2)  
   - ARM instructions (LEGv8)
   - Operations
   - Operands
   - Data representation
   - Representing instructions in hardware
   - Control flow
   - Procedures
   - Nested procedures
   - Recursion
   - Arrays and Pointers
   - Other instruction sets
   
III. Computer Arithmetic (PH: 3)  
   - Binary arithmetic
   - Integer Addition, subtraction
   - Integer Multiplication, Division
   - Floating point arithmetic
   - Addition and Subtraction
   
IV. Processor design (PH: 4)  
   - Data paths
   - Simple implementation
   
V. Memory systems (PH: 5)  
   - Memory technologies
   - Memory hierarchy
   - Cache memories
   - Cache performance
   - Virtual memories
   
VI. Pipelined Processor (PH: 4)  
   - Depends of time