CSCE 2610: Computer Organization

You May Want To Know

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Tentative Breakdown Of Course Grade

Assignments 20%
Programming Labs 15%
Pop Quizzes 10%
2 Exams 30%
Final 20%
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) 6
   Computer abstractions
   Below your program
   The Big picture
   Performance
   Digital Logic

II. Instruction Sets and Assembly Language programming (PH:2) 12
   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) 9
   Binary arithmetic
   Integer Addition, subtraction
   Integer Multiplication, Division
   Floating point arithmetic
      Addition and Subtraction

IV. Processor design (PH: 4) 9
   Data paths
   Simple implementation
   Pipelined implementation

V. Memory systems (PH: 5) 6
   Memory technologies
   Memory hierarchy
   Cache memories
   Cache performance
   DRAM
   Virtual memories