2010 Fall CS1356
Introduction to Information Engineering

Syllabus

Time: Mon10:10-12:00, Wed 9:00-9:50

Classroom: 資電館 131

Webpage: http://www.cs.nthu.edu.tw/~cherung/teaching/2010cs1356

> Course supplemental materials and announcement will be posted regularly.

Textbook: *Computer Science: An Overview* (*10th ed*) by J. Glenn Brookshear

> (http://www.aw-bc.com/brookshear/)

Instructor: 李哲榮 (cherung@cs.nthu.edu.tw)

Office hour: by appointment

Teaching assistants:

周宗毅 <cliff770114@hotmail.com>

張雅芳 <skygame49@hotmail.com>

陳楠熹 <senkrad1101@hotmail.com>

Grading:

▸ Quiz (every Monday at the beginning of class): 20%

▸ First exam: 20%   (tentative schedule 10/18/2010)

▸ Second exam: 20%   (tentative schedule 11/29/2010)

▸ Final exam: 20%   (tentative schedule 1/10/2011)

▸ Term paper: 10%   (before 1/17/2011)

▸ Class participation: 10%

▸ There will be homework assignments, but won't be graded.

Class goals:

▸ Learning basic jargons of computer science

  ▸ English terminology

▸ Learning basic knowledge that will be used in most CS classes

  ▸ Ex: binary operations, computer architecture, etc

▸ Having an overview of computer science

  ▸ The importance of other CS classes that you are taking or going to take.

  ▸ An overview of (some) fields in CS

Topics plan to cover:

- Part I: How computer works?
    - Data representation: (digital, binary)
    - Computer architecture: (logic design, computer)
    - Operating system
    - Computer network
- Part II: How to make computers work?
    - Algorithm
    - Data structure
    - Programming languages
    - Language translation
    - Software engineering
- Part III: Overview of different fields in CS
    - Multimedia
    - Computer graphics
    - Computer-aided design
    - Scientific computing
    - Parallelization
    - Embedded system and sensor network
    - Internet
    - Theory of computation
    - Database system
    - AI (artificial intelligence)
    - Software ownership