Course Syllabus

Course Number   2143203
Course Name   Fundamental Data Structure and Algorithm
Credits   3
Department   Information and Communication Engineering
Semester   2nd
Year   2009
Instructors   Prabhas Chongstitvatana, Ph.D. (prabhas@chula.ac.th)
Pre-requisite   None
Level   Undergraduate
Hours/Week(Lecture)   3
Schedule   Tuesday 14:00-15:30 room 2205,
                       Friday 13.00-14.30 room 2210

Topics

Introduction to Analysis of Algorithms, Asymptotic notations, List, Stack, Queue, Tree, Heap, Hash Table , Sorting and Searching, examples in data structure.

Schedule

week 1 5 Jan   Intro   8 Jan cont'
week 2 12 Jan   Algorithm   15 Jan cont'
week 3 19 Jan   Programming   22 Jan cont'
week 4 26 Jan   -- University Games   29 Jan ---
week 5 2 Feb   Analysis   5 Feb   cont'   Quiz 1
week 6 9 Feb   Sorting   12 Feb cont'
week 7 16 Feb   Searching   19 Feb cont'   Quiz 2
week 8 23 Feb   --- Midterm   26 Feb   ---
week 9 2 Mar   List   5 Mar   Stack
week 10 9 Mar   Queue   12 Mar cont' Quiz 3
week 11 16 Mar Tree   19 Mar cont'
week 12 23 Mar Heap   26 Mar cont'
week 13 30 Mar Hash   2 Apr   cont' Quiz 4
week 14 6 Apr   -- Chakri day   9 Apr   Special topic1
week 15 13 Apr -- Songkran day   16 Apr Special topic2
week 16 20 Apr Revise   23 Apr Final Class

Grading

        Four in class quizes 4 x 12 = 48%
        Final Exam 40%
        Assignment 12%

Policy Copying other students' work is strongly prohibited. The staffs take this matter seriously.

Required Reading

- Class notes.
- *Data Structure and Algorithm Analysis in Java* (2nd Edition), Mark Allen Weiss, Addison-Wesley, 2006

Optional Reading

- *Introduction to Algorithm* 2nd edition, T.Cormen, C. Leiserson, R. Rivest, C.Stein, MIT Press & Mcgraw-Hill, 2001
- *Data Structure: VAJA-JAVA edition*, Somchai Prasitjutrakul, Chulalongkorn Press, 2007 (Thai)