Summer 2012

CEG 730-01: Distributed Computing Principles

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CEG 730 Distributed Computing Principles

Summer Quarter, 2012

Catalog Data: Communicating sequential processes, clients and servers, remote procedure calls, stub generation, weak and strong semaphores, split-binary semaphores, and distributed termination. 3 hours lecture and 2 hours lab.

Prerequisite: CEG 433/633 Operating System or equivalent

Instructor: Dr. Soon M. Chung
403 Russ Engineering Center (775-5119)
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Class: Tu. Th. 4:10-5:25 pm at 153 Russ Center

Office hour: Tu. Th. 2:30-3:30 pm at 403 Russ, or by appointment.
*use e-mail for short questions.

Text Book: George Coulouris, Jean Dollimore, Tim Kindberg, and Gordon Blair, *Distributed Systems: Concepts and Design*, 5th edition, Addison-Wesley, 2012.

References:
- A. Silberschatz, P. Galvin, and G. Gagne, *Operating System Concepts*, John Wiley & Sons.
- A. Tanenbaum and M. van Steen, *Distributed Systems: Principles and Paradigms*, Pearson Prentice Hall.
- A. Tanenbaum, *Distributed Operating Systems*, Prentice Hall.

Topics: Characterization and Models of Distributed Systems (Chapters 1-2)
Networking and Interprocess Communication (Chapters 3-4)
Remote Invocation (Chapter 5)
Operating System Support (Chapter 7)
Security (Chapter 11)
Distributed File Systems (Chapter 12)
Name Services (Chapter 13)
Time and Global States (Chapter 14)
Coordination and Agreement (Chapter 15)

Grading: A:[85,100], B:[75,85), C:[65,75), D:[55,65), F:[0,55)
1. Midterm exam: 30% (7/17, Tu.)
2. Final exam : 40% (8/16, Th. 4:10-5:50 pm)
3. Project: 30% Choose either a programming project or a paper-review project by 7/19.
   - Programming project (design 7%, implementation 9%, written presentation 7%, discussion 7%)
   - Paper review project (papers studied 7%, technical quality 7%, written presentation 7%, discussion 9%)