

ECE 526 Distributed Algorithms
Spring 2013

Prerequisite: One of CS 473, ECE 428, ECE 438

Instructor: Nitin H. Vaidya, Phone: 217-265-5414 E-mail: nhv@illinois.edu
Office Hours: Monday 11:00 - 12:00 or by appointment, room 458 Coordinated Science Lab.
Class: Tuesday and Thursday 9:30 - 10:50 a.m., Room 1131 Siebel Center

Course web page: <http://courses.engr.illinois.edu/ece526/>

Please visit the course web page regularly to see course-related announcements, and other relevant information.

Course material:

- Required textbook: *Distributed Computing: Fundamentals, Simulations, and Advanced Topics, Second Edition*, Hagit Attiya and Jennifer Welch, John Wiley & Sons, 2004.
- In addition to the required textbook, the course will also use papers from relevant publications.

Course Content: Theoretical aspects of distributed algorithms, with an emphasis on formal proofs of correctness and theoretical performance analysis. Algorithms for consensus, clock synchronization, mutual exclusion, debugging of parallel programs, peer-to-peer networks, and distributed function computation; fault-tolerant distributed algorithms; distributed algorithms for wireless networks.

Grading policy

- Homeworks: 15%
A 48-hour extension beyond the due time for each homework is granted to all students. Submissions after the extension period will be assessed 10% penalty per day for the first 5 days – submissions later than that will not be accepted without prior approval of the instructor.
- Two mid-term exams: 30% total
- Survey paper and presentation: 25%
- Final exam: 30%

Academic integrity: The policy for academic integrity is based the UIUC Student Code available from <http://www.admin.illinois.edu/policy/code/> which states that “It is the responsibility of the student to refrain from infractions of academic integrity, from conduct that may lead to suspicion of such infractions, and from conduct that aids others in such infractions”.

You may discuss interpretation of the assignments with each other, but you are expected to construct and submit your own solutions to any assignment that you turn in for credit. If students are found to have collaborated excessively or to have blatantly cheated (e.g., by copying or sharing answers during an examination), all involved will receive a grade of 0 for the first infraction; further infractions may result in failure in the course and possibly other penalties.