CSE 513: Distributed Systems

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Prerequisite: CMPSC 473
Class time, Place: TuTh 10:35AM - 11:50AM, Leonhard Bldg 102
Class Web page: http://www.cse.psu.edu/~gcao/teach/513

We also read papers that will be posted on the class web page.

References: Distributed Systems: concepts and design, G. Coulouris, J. Dollimore, and T. Kindberg

Course Outline:

1. Introduction
2. Architecture – Client-server, peer-to-peer, caching
3. Synchronization – Global state, election, distributed mutual exclusion
4. Consistency and Replication – Consistency models, consistency protocols, replication
5. Fault Tolerance – Fault models, reliable multicast, commit, checkpointing and recovery

Course Grading:

- Homework + paper summaries: 15%
- Projects: 20% (Option1: two labs Option2: a research project)
- Midterm: 27%
- Final: 35%
- Class Participation: 3%

Policies: Assignments are due at the start of class on the date specified. They will be accepted after the due date until the start of the next class period with a 20% penalty. No submission will be accepted after this time (i.e., one class after the due date).

Academic Integrity Statement: Dishonesty of any kind will not be tolerated in this course. Dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. Students who are found to be dishonest will receive academic sanctions and will be reported to the University (see Senate Policy G-9). The CSE Department has its statement on Academic Integrity (http://www.eecs.psu.edu/students/resources/EECS-CSE-Academic-Integrity.aspx)

Accessibility: Penn State welcomes students with disabilities into the University’s educational programs (see http://equity.psu.edu/student-disability-resources)

Counseling & Psychological Services (CAPS): Students who experience personal issues that interfere with their academic performance can seek assistance from CAPS center (http://studentaffairs.psu.edu/counseling).