ICS 662: Distributed System Design

A. Course Description

Credits: 4

Lab Hours/Weeks: Corequisites: None

Lecture Hours/Week:

MnTC Goals: None

This course covers fundamental principles and theories on distributed and network operating systems, communication models, Client/Server architecture, and Peer-to-Peer paradigms. Group communication, synchronization, threads, processor allocations, fault tolerance, distributed shared memory, and case studies are also introduced.

B. Course Effective Dates: 01/12/2004 - Present

C. Outline of Major Content Areas:

See Course Description for major content areas.

D. Learning Outcomes (General)

1. Explain the central issues involved in the design of distributed systems.
2. Implement distributed algorithms using an appropriate programming language.
3. Understand current techniques and tools associated with distributed and network operating systems.
4. Apply distributed system concepts to the design of distributed systems.
5. Demonstrate expertise in reading peer-reviewed papers in distributed systems and explain them in writing.
6. Understand the role of central concepts such as load balancing and synchronization in different types of distributed systems such as database systems and operating systems.

E. Learning Outcomes (MN Transfer Curriculum)

This contains no goal areas.

G. Special Information

Prerequisites: Graduate standing. Note: Students are responsible to both be aware of and abide by prerequisites for ICS courses for which they enroll, and will be administratively dropped from a course if they have not met prerequisites.