



CSC 7290: Advanced Computer Networking

(Previous course-name: Broadband Network Architectures)

Winter 2010

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Class reference number: 22167 (web section: 25340)

Class timings: MW 3:00pm-4:20pm

Class webpage: <http://www.cs.wayne.edu/~hzhang/courses/7290/7290.html>

Overview

This course is designed for students who are interested in the principles and techniques of network protocol and system design. Topics span three broad areas: 1) *Performance evaluation of networked systems*: techniques and metrics, experiment design, data analysis, and statistical modeling; 2) *Modeling, analysis, and design of network protocols*: formal specification and analysis of network protocol properties, design of scalable and fault-tolerant network protocols; 3) *Stochastic analysis of networked systems*: stochastic process, queuing theory, and their applications to network modeling and analysis.

In short, the objective of this course is to help students understand the foundational principles and techniques of network design and analysis, to help students appreciate why networks have been designed as they are today, and to build up the students' capability in enhancing the state of the art in computer networking.

Prerequisites

Basic knowledge of computer networks (e.g., materials covered in CSC 4992/6290 or equivalent), elementary probability theory, statistics, and mathematical logic. Or consent of instructor.

For more information, please visit the class webpage or contact Hongwei Zhang (hongwei@wayne.edu).