



# CSC 4992: Introduction to Computer Networks

—How Do Networks Work?

Fall 2011

**Instructor:** Dr. Hongwei Zhang  
hzhang AT cs.wayne.edu  
+1 313 577 0731  
<http://www.cs.wayne.edu/~hzhang/>

**Class ref. number:** 12897/14649

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

**Class webpage:** <http://www.cs.wayne.edu/~hzhang/courses/4992/4992.html>

## Overview

This course is designed for undergraduate students who are interested in the fundamentals of computer networks. Topics include network architecture, multiple access control, packet switching, routing and flow control, congestion control and quality-of-service, Internet protocols (e.g., IP, TCP, and BGP), network security, network management, and elements of distributed computing (e.g., naming, caching, and synchronization). We examine these topics from the perspectives of both the Internet and emerging networking technologies (such as wireless sensor networks, mobile ad hoc networks, and disruption tolerant networks).

In short, the objective of this course is to help students appreciate the underlying principles of computer networks, to help students build the foundation for understanding advanced topics in networked systems (such as those that will be covered in CSC 6290 and CSC 7290), and to help students build up their skill set necessary for making innovative contributions to both networking technologies and applications.

## Prerequisites

Undergraduate courses in algorithms, computer architecture, and operating systems (e.g., CSC 3100, CSC 3110, CSC 4420, or equivalent); or consent of instructor.

*For more information, please visit the class webpage or contact Dr. Hongwei Zhang (hzhang@cs.wayne.edu).*