

CSP 550: Internet Programming

Texts

- Andrew Tanenbaum and M. Steen, *Distributed Systems: Principles and Paradigms*, 2002.
- References
 - Gregory Andrew, *Foundation of Multithreading, Parallel and Distributed Programming*. W. Richard Stevens, *UNIX Network Programming, Volumes 1 and 2*, 2nd edition.
 - Elliotte Harolds, *Java Network Programming*, 2nd edition.

Objectives

- This course discusses current fundamental concepts and development techniques for distributed applications.
- Topics covered include multithreaded programs, sockets, message-passing systems, remote method invocation and procedure calls, peer-to-peer networks, and underlying technologies for internet applications.

Projects

- It is expected students will work on programming assignments and write a final project paper on distributed and internet applications.

Prerequisites

- CS 455.

Syllabus

• Introduction - Distributed systems and the Internet	3 hours
• Design Issues - Synchronization, security, consistency, etc.	9 hours
• Peer-to-Peer Models	6 hours
• Socket Programming	6 hours
• Multithreaded programming	3 hours
• Message-Passing Programming	3 hours
• RPC and RMI	6 hours
• Web services and SOAP	9 hours
Total	45 hours

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