

CLEMSON CPSC 3600

Networks & Network Programming

CATALOG DESCRIPTION

Introduction to basic concepts of computer network technologies and network programming. Topics include network programming, layered protocol architectures, local and wide area networks, internetwork and intranetwork concepts, security. Socket level programming is introduced and used throughout the course.

PRE-REQUISITES

- Clemson Students: Preq: [CPSC 2120](#) and [CPSC 2150](#), each with a C or better.
- Visiting/Transient Students: A course in data structures and algorithms and familiarity with C/C++

COURSE LEARNING OUTCOMES

1. Describe the layered structure of a typical networked architecture
2. Define the principles behind naming schemes and resource location
3. Implement a simple client-server socket-based application
4. Describe how packets are forwarded in an IP network
5. Describe the differences between IP and Ethernet
6. Apply systems modeling concepts to monitor and assess network performance

BRIEF LIST OF TOPICS

Network security; network concepts, networked applications, reliable data delivery, routing and forwarding, local area networks, network security, concurrent programming special/application topics.

TEXTBOOK

Kurose & Ross. Computer Networking: A Top-Down Approach, 7th edition. ISBN-9780133594140.

Please note that this syllabus is a general plan for the course; a finalized syllabus will be distributed on the first day of classes with additional information

