CS4254: Network Architecture and Programming

Srinidhi Varadarajan
Spring 2004
Class Details

- **Instructor:**
  - Dr. Srinidhi Varadarajan
  - Office Hours: 10 am – 11:30 am Mon-Wed

- **GTAs:**
  - Muthukumar Thirunavukkarasu
    - Email: mthiruna@vt.edu
  - Office Hours Location: McB 133
  - Office Hours: Muthukumar: Tu, Th: 10am – 12pm

- **Class:**
  - Meeting: 2:30 pm – 3:45 pm, Mon-Wed, Derring 1090

- **Electronic Discussion:**
  - forum.cs.vt.edu
  - Register at this site and use the CS4254 section for public postings.
  - Class listserv will be used for announcements. You will be automatically added to the listserv.
Goals

• Explain basics of computer communication over various physical media
• Introduce concepts of network protocols and identify key issues
• Explain the seven-layer OSI communication protocol model
• Explain the architecture and protocols comprising the Internet
• Implement network services that communicate through the Internet
• Identify and explore network programming abstractions in use today
Topics

- Introduction to computer network architectures
- OSI Protocol Model
- Internet Protocols
- Network Programming Abstractions
- Client/Server Programming
- Network Security
Prerequisites

- CS3204 (Operating Systems)
- Strong programming ability in C
- User-level understanding of the UNIX operating system
- Ability to undertake substantial independent design projects
Resources

• **Required text:**

• **Recommended text:**
## Grading

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<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework + Quizzes</td>
<td>10%</td>
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<tr>
<td>Projects (3)</td>
<td>45%</td>
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<tr>
<td>Midterm (1)</td>
<td>15%</td>
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<td>Final Project</td>
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