Computer Networking Protocols

ECE 465

Spring 2007

Instructor Dr. B.-Peter Paris
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Time and Place Tuesay and Thursday, 10:30-1:45am, Enterprise Hall, room 276.

Office Hours Tuesday 1:30pm – 2:30pm and Thursday 12:00pm – 1:00pm.

Required Textbook 1. James F. Kurose and Keith W. Ross, *Computer Networking - A Top-Down Approach*, Third Edition, Prentice Hall, Englewood Cliffs, NJ, 2004.

Recommended Further Reading

1. Michael J. Donahoo and Kenneth L. Calvert, *TCP/IP Sockets in C*, Morgan Kaufman Publishers, 2001.
2. Kenneth L. Calvert and Michael J. Donahoo, *TCP/IP Sockets in Java*, Morgan Kaufman Publishers, 2001.
3. Numerous other texts on TCP/IP networks exist and can be used as supplementary material.

Homework will be assigned every week and is due the following week. Homework will be collected and graded by the teaching assistant.

You are encouraged to work on the assignments in small groups. Do not refer to homework solutions distributed in previous semesters; copying from old solutions constitutes plagiarism and will be handled in accordance with the Honor Code. Homework solutions will be made available.

Exams A Midterm and a Final Exam will be given during the semester. Make-up exams are rarely given. In case of an emergency, contact the instructor as soon as possible and always *before* the exam. Failure to take an exam, will result in no credit for the exam. All exams are conducted under the rules and regulations of the **Honor Code** (see University Catalog).

Project A group design project will be assigned early in the semester and is to be presented in the last class.

Teaching Assistant

Harsha Gurram
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Location : TBD
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On-line Class Material Class material will be distributed electronically via the World-Wide Web. Use a browser to find the ECE 465 homepage at URL: `http://www.spec.gmu.edu/~pparis/classes/ece465.html`.

Final Grades are determined by a weighted average of homework, the two exams, and the final exam in the following manner:

Homework	10%
Midterm	20%
Final	40%
Project	30%

Tentative Course Schedule

Week 1 Overview (Chapter 1)

Week 2-5 Application Layer Protocols (Chapter 2): HTTP, SMTP, POP, DNS, Client-Server protocols, TCP/IP programming with `sockets`.

Week 6-9 Transport Layer Protocols (Chapter 3): Principles of reliable transport protocols, TCP, multiplexing, performance issues.

Week 10-13 Network Layer Protocols (Chapter 4): Addressing and Routing, routing algorithms and protocols.

Week 14 Advanced topics.

Thursday May 10 *Final Exam* 10:30am – 1:15pm