EEL5718: Computer Communications

Fall 2001

Instructor: Professor Yuguang "Michael" Fang
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Textbook: *Communications Networks: Fundamental Concepts and Key Architectures*, Leon-Garcia and Widjaja, McGraw Hill, 2000.
References: 1. *Computer Networks* by Andrew Tanenbaum, 3rd edition, Prentice-Hall, 1996. 2. *Data & Computer Communications*, 6th Edition, by William Stallings, Prentice-Hall, 2000.

Syllabus:

1 . Overview of communications networks and services

2 . Layering architectures

3 . Physical layer fundamentals: data transmission, coding/decoding, and modulation/demodulation

4 . Multiplexing and Switching

5 . Data link control: error control and ARQ protocols

6 . Multiple access control (MAC) protocols

7 . Routing algorithms and protocols

8 . Congestion controls

9 . Transport protocols

10 . LAN Technologies

11 . Selected advanced topics: ATM, IP switching, MPLS, ISA, DiffServ, RSVP

12 . Network security

Grading: Grades are based 20% on homework, 35% on midterm, 45% on final. Overall average $> 90\%$ is guaranteed an A, $> 80\%$ is guaranteed a B, etc. No late homework is accepted.

Honor code: All students must follow the honor code of the University of Florida. Particularly, cheating in homeworks and exams will not be tolerated.