

**Electrical Engineering & Computer Science
University of Kansas**

**EECS 845
Implementation of High Performance Networks
Tuesday and Thursday, 1:00-2:20 PM
2022 Learned Hall
Line Number 66838**

Dr. Joseph B. Evans
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Office Hours: By appointment

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Teaching Assistant: TBD

Topics

- Introduction to High Performance Networking
- Networking and Network Architectures
- Functions and Implementations
- Packet and Cell Switch Architectures
- Routing
- Internetworking
- IP over ATM
- Synchronization and Framing
- Error Detection/Correction Coding
- Congestion Control and Bandwidth Management
- Host Performance Issues
- Encryption/Decryption

Texts/References

- Notes
- Computer Networks – A Systems Approach, L. Peterson and B. Davie, Morgan Kaufmann Publishers, 2nd edition, 2000 (required)
- Internetworking with TCP/IP – Volume I, D. Comer, Prentice Hall, 1995 (recommended)

Anticipated Schedule

Date	Topic
January 16	Course Organization Overview of Networking
January 18, 23	Foundations
January 25, 30	Direct Link Networks
February 1, 6	Packet and Cell Switching
February 8, 13	Packet and Cell Switching
February 15, 20, 22	Internetworking
February 27, March 1, 6	Internetworking
March 8	Exam
March 13, 15	End-to-End Protocols
March 20, 22	Spring Break
March 27, 29	End-to-End Protocols
April 3, 5	End-to-End Data
April 10, 12	Congestion Control
April 17, 19	High Speed Networking
April 24, 26	Hot Topics in Networking
May 1, 3	Paper Presentations
May 16	Final Exam, 11:30 AM – 2:30 PM

Note that this schedule may be modified in order to adapt to currently unforeseen circumstances.

Grading Policy

The class will be graded competitively according to the percentages listed below. Each assignment within a category will be weighted equally. The course grade thresholds (that is, the numerical grade required to get a particular letter grade) will be set by the instructor to reflect the relative performance of the students. Class attendance is expected unless otherwise indicated.

Exam	25%
Final	30%
Paper Presentations	10%
Project	25%
Homework, Miscellaneous	10%

Note: failure to complete the "Project" portion of the course will result in a grade of F for the course.

3% per day will be subtracted from assignments turned in late, except under extraordinary circumstances and with adequate prior notification of the instructor.

The student must notify the instructor within 48 hours of a missed exam and present adequate justification. If illness is the justification, a doctor's note must be provided to the instructor.

An appeal on grades for individual assignments must be within 14 days of the date the assignment is returned.

Further details of the project grading procedure may be announced in class or via e-mail as required.