

Syllabus

CS 35201 Computer Communication Networks

Spring 2016

Department of Computer Science Kent State University

Instructor: Maha A. Allouzi

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Office Hours

M, W 10:30 - 11:30 am

Room: 272 MSB

Course Learning Objectives:

Students will learn (i) how the Internet is organized, operates, and managed, (ii) how local area networks, wireless networks, and mobile networks are integrated to the Internet, and (iii) how digital data moves from one computer to another.

Prerequisite: CS 23001 Computer Science II: Data Structures & Abstraction

Text Book:

Computer Networks, 5/E

Andrew S. Tanenbaum, Vrije University, Amsterdam, the Netherlands

David J. Wetherall, University of Washington

Course website: www.cs.kent.edu/~mallouzi

Course Topics:

1. Introduction: History of Networking, Internet Management, Networking (General Sites), News Media, OSI Model, Professional and Technical Organizations, References (General), Standards Organizations, Telecommunications, Wide Area Networking (WAN) Protocols, and Wireless Networks.

2. Physical Layer: Cable Television Networks, Cellular Telephone Networks, Digital Subscriber Line (DSL), Fiber Optics, Satellite Networks, SONET, Spread Spectrum, Telephone System, and Wireless Networks.
3. Data Link Layer: High-Level Data Link Control (HDLC), Petri Nets, and Point-to-point Protocol (PPP).
4. Medium Access Sub-layer, Bluetooth, Ethernet, IEEE 802, LANs, and VLANs.
5. Network Layer, Internet Backbones, Internet Protocol (IP), Mobile IP, Routing, and Quality of Service.
6. Transport Layer, Remote Procedure Call, RTP, Socket Programming, TCP/IP, and UDP/IP.
7. Application Layer: Domain Name System (DNS), Dynamic Web Page Construction, Electronic Mail, HTML and XML, Multimedia, Network Administration, RTP, Voice over IP, Wireless Web, and World Wide Web.
8. Introduction to Software Defined Networking

Course Organization and grading:

Exam#1 Wednesday, Feb, 17 2016	9:15-10:15 am	25%
Exam#2 Wednesday, Mar 30, 2016	9:15-10:15 am	25%
Assignments & Quizzes		20%
Final Exam Wednesday, May 11 th 2016	10:15-12:30 pm	30%

<http://www.kent.edu/registrar/spring-final-exam-schedule>

Course Policy

Students with Disabilities

University policy requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through Services or contact (330) 672-3391.

Administrative Policy Regarding Students Conduct

Chapter 3 of the University Policy Register describes policies with regard to teaching, research and public service. In specific, University Policy 3-01.8 deals with the problem of academic dishonesty. No form of academic dishonesty will be tolerated in this class and will be dealt strictly by the policies given in Chapter 3 of the University Policy Register. The sanctions Provided in this policy will be used to deal with any violations. If you have any questions, please read Administrative policy regarding student cheating and plagiarism and/or ask