

Computer Networks Basic Protocols

Fall 2017-2018

General Info:

- Course Day and Hour:

Wed 12:30-15:30

- Classroom:

EEB 5201

- Course WebPage:

Through “ Ninova” BLG 514E-CRN: 13814

- Instructor:

Assoc. Prof. Dr. Berk CANBERK

EEB 2212

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Syllabus:

Week No	Date	Subject
1	13 September 2017	Introduction to Computer Networks' World
2	20 September 2017	Physical Layer Protocols: Signals and Shannon Model Analysis
3	27 September 2017	MAC Layer-1: Link Layer Services, Framing, Error Control Protocols, Modulation Techniques
4	04 October 2017	MAC Layer -2: Access Protocols, Link Layer Analytics in Cellular Networks, Grade of Service
5	11 October 2017	Midterm-1
6	18 October 2017	Routing Layer -1: Routing Protocol Primitives, Basic Routing Algorithms, IP Address Schemes
7	25 October 2017	Routing Layer -2: Congestion Control Protocols, Mobile IP, Routing protocols in Cellular Networks
8	08 November 2017	Transport Layer: Protocol Primitives, UDP
9	15 November 2017	Midterm-2
10	22 November 2017	Wired and Wireless TCP
11	29 November 2017	Application Layer: HTTP, FTP, DNS, Telnet Protocols
12	06 December 2017	Wireless Network Mngt Protocols in LTE
13	13 December 2017	Presentations-1

Course Evaluation:

- **2 Midterms:** $2 \times \%20 = \%40$
- **Term Project:** $\%25$
 - Crew: 2 people.
 - 15 slides, MAX 20 min presentation.
 - Presentation: $\%15$ (in the presentation weeks)
 - Report (1/project): $\%10$ (Deadline: Final Day)
 - Project details and the project pool will be announced.
- **Final:** $\%35$

Sources:

- *Data and Computer Communications*, William Stallings, Pearson-Prentice Hall, 9th Edition, 2010.
- *Computer Networking, A Top-Down Approach Featuring the Internet*, James F.Kurose, Keith W.Ross, Pearson-Addison Wesley, 6th Edition, 2012.

Additional Sources:

- *TCP/IP Protocol Suite*, Behrouz A. Forouzan, McGraw Hill, 4th Edition, 2010.
- *Computer Networks and Internets*, Douglas E. Comer, Pearson Education, 5th Edition, 2008.
- *Computer Networks*, Andrew Tanenbaum, Pearson, 5th Edition, 2010.
- Slides
- <http://scholar.google.com>
- <http://ieeexplore.ieee.org/>
- “Google!”