

**Principles of Computer
Communications
Fall 2014-2015**

General Info:

- Day and hour:
Tuesday, 13:30-16:30
- Classroom:
EEB XXX
- Course webpage:
“ Ninova path: BLG337E CRN: 13662”
- Instructor:
Assist.Prof.Dr. Berk CANBERK
EEB 4318
Email: canberk@itu.edu.tr
web: <http://web.itu.edu.tr/canberk/>

Syllabus:

Week	Date	Subject
1	09 September 2014	Introduction, History, Shannon model, Protocol Layers
2	16 September 2014	Physical Layering Issues, Wired PHY Technologies
3	23 September 2014	Modulation Techniques
4	30 September 2014	Electromagnetic Spectrum, PHY for Wireless Media
5	07 October 2014	HOLIDAY
6	14 October 2014	1. Midterm
7	21 October 2014	Data Link Layer Principles, Error Detection, LAN
8	28 October 2014	Bridging in Wired and Wireless Topologies, Spanning Tree Bridges, Switches, Virtual LANs.
9	04 November 2014	Medium Access Control (MAC) Taxonomy and Protocols.
10	11 November 2014	Sliding Window Protocols, Congestion and Flow Controls
11	18 November 2014	Wireless LAN, 3G-4G Cellular Network Topologies
12	25 November 2014	2.Midterm
13	02 December 2014	Cell Planning, Standardization, Current Wired and Wireless Computer Communications, PRESENTATIONS-1 (G1, G2)
14	09 December 2014	Next Generation Networking, PRESENTATIONS-2 (G3,G4, G5)

Criteria:

- 2 Midterms: $2 \times \%15 = \%30$
- Project Presentation: $\%20$
- 2 Homeworks: $2 \times \%5 = \%10$
- Final: $\%40$
- Lecture Attendance: $\%70$

Presentation:

- Group of 5 people (select your wingmen ASAP!)
- Topic will be picked from the pool by FCFS principle (pool will be announced before Midterm-1)
- Presentation duration:
50 min/group (10 min/person)
- No Report required, just prepare and perform a PERFECT presentation..
- Every group member will be graded as follows:
Final Project Presentation Grade: $50 \times (\text{Personal Perf.}) + 50 \times (\text{Group Perf. Average})$
- During last 2 weeks..

Books and Other Sources:

Principal Book:

- *Computer Networking, A Top-Down Approach Featuring the Internet*, James F.Kurose, Keith W.Ross, Pearson-Addison Wesley, 6th Edition, 2012.

Other helpful sources:

- *Data and Computer Communications*, William Stallings, Pearson-Prentice Hall, 9th Edition, 2010.
- *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.
- Lecture Slides
- <http://scholar.google.com>
- <http://ieeexplore.ieee.org/>
- “Google!”