**BLG433E – Computer Communications, Fall 2017**

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**Course Learning Outcomes:**

1. to understand the fundamentals of data communication and communication networks
2. to have the capability of designing and analyzing data transmission
3. to have the skill to implement networking protocols using TCP/IP based socket programming

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| **CourseTextbook** | JAMES F. KUROSE, KEITH W. ROSS, Computer Networking: a top-down approach, 7th edition, pearson, 2017 |
| **Other References** | ANDREW S. Tanenbaum , *Computer NETWORKS*, 4th edITION, Prentice Hall |

**Grading:**

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| Midterm Exams | 1 | 25 |
| Projects | 2 | 30 |
| Term Paper/Project | 1 | 10 |
| Final Exam | 1 | 35 |

To be accepted to the final exam, 30/100 success of at the term work is required!

Pay attention to attendance!

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| **Weeks** | **Topics** | **Course Outcomes** |
| **1** | Introduction to the course. | 3 |
| **2** | Computer Networks and Internet. Performance metrics. | 3 |
| **3** | Protocol Layers. Principles of network applications. Web, Http. | 3 |
| **4** | Socket Programming and Wireshark | 3 |
| **5** | Transport Layer (1st project assignment). | 3 |
| **6** | User Data Protocol (UDP). | 2-3 |
| **7** | Transport Control Protocol (TCP). | 2-3 |
|  | One week Term Break (30 Oct. – 03 Nov 2017) |  |
| **8** | Midterm, Nov.10, 2017 | 2-3 |
| **9** | Network Layer: Data Plane (2nd project assignment). | 1-2 |
| **10** | Network Layer: Control Plane. | 1-2 |
| **11** | Network Layer: Control Plane (Papers and groups should be finalized). | 1-2 |
| **12** | Data Link Layer and LANs. | 1 |
| **13** | Paper presentation. | 1-3 |
| **14** | Paper presentations. | 1-3 |