**BLG433E – Computer Communications, Fall 2024-2025**

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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 analysing data transmission
3. to have the skill to implement networking protocols using TCP/IP based socket programming

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| **Course Textbook** | JAMES F. KUROSE, KEITH W. ROSS, Computer Networking: a top-down approach, 7th edition, pearson, 2017 |
| **Other References** | ANDREW S. Tanenbaum, DAVID J. WETHERALL , *Computer NETWORKS*, 5th edITION, Prentice Hall |

**Grading:**

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| Quizzes | 2 | 10% |
| Projects | 1 | 20% |
| Term Group Paper | 1 | 15% |
| Midterm | 1 | 25% |
| Final Exam | 1 | 30% |

**At least 70% percent attendance and 28 points from interm activities (28 out of 70) are required for final exam eligibility.**

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| **Weeks** | | **Topics** | **Course Outcomes** |
| **1** | **02.10.24** | Introduction to the course. | 1-3 |
| **2** | **09.10** | Computer Networks and Internet. Performance metrics. | 1-3 |
| **3** | **16.10** | Protocol Layers. Principles of network applications. Web, Http. | 3 |
| **4** | **23.10** | Socket Programming (Quiz #1). | 3 |
| **5** | **30.10** | Transport Layer (1st project assignment). | 2-3 |
| **6** | **06.11** | User Data Protocol (UDP). | 2-3 |
| **7** | **13.11** | Transport Control Protocol (TCP). | 2-3 |
|  | **20.11** | In-term Break |  |
| **8** | **27.11** | Midterm | 1-3 |
| **9** | **04.12** | Network Layer: Data Plane/Control Plane | 1-2 |
| **10** | **11.12** | Network Layer: Control Plane. (Term Group Paper assignment) | 1-2 |
| **11** | **18.12** | Data Link Layer (Quiz #2). | 1-2 |
| **12** | **25.12** | Local Area Networks. | 1-2 |
| **13** | **01.01.25** | New Year’s Day |  |
| **14** | **08.01.25** | Paper presentations. | 1-3 |