



CSE421/EEE465

Computer Networks

Fall 2025

Course Outline & Etiquettes... & stuff

Department of Computer Science and Engineering,
School of Data and Sciences
BRAC University.

Introduction

Course: CSE421/EEE465 - Computer Networks

Semester: Fall 2025

buX Resources: - [buX CSE421](#)

Theory Instructors:

- [AKTD] Md. Akhtaruzzaman Adnan
- [ARF] Mr. Arif Shakil
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- [SKZ] Dr. Sadia Hamid Kazi
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- [MSAH] Dr. Md. Sakir Hossain
- [ANWE] Abdullah Nayem Wasi Emran
- [BIJS] Bijoy Ahmed Saeem
- [CAST] Ashis Talukder
- [HAS] Md. Mahadi Hasan

Reading Materials:

1. Computer Networking: A Top-Down Approach Featuring the Internet by Jim **Kurose** and Keith **Ross**, Addison Wesley, 6th Edition
2. Computer Networks - A Systems Approach, By Peterson and Davie, 5th Edition, Published by Morgan Kaufmann
3. Computer Network Security and Cyber Ethics by Joseph Migga Kizza
4. Ethics in Information Technology by George Reynolds

Tentative Course Outline/Schedule

Lecture/ Class	Week	Topic	Quiz	Assignment
1	1	Protocols & Layers		
2	1	Protocols & Layers		
3	2	Application Layer - HTTP		
4	2	Application Layer - HTTP		
5	3	Application Layer (Email & DNS)		
6	3	Transport Layer (Intro & UDP)		
7	4	Transport Layer (TCP)		
8	4	Transport Layer (TCP)		
9	5	Network Layer (IPv4 Addressing)		
	5			
	6			
	6			
6,7,8 MIDTERM WEEK				
CENTRAL MIDTERM EXAM				
10	8	Network Layer (IPv4 Functions)		
11	8	Network Layer (Subnetting)		
12	9	Network Layer (DHCP/NAT)		
13	9	Network Layer (Static Routing)		
14	10	Network Layer (Static Routing)		
15	10	Network Layer (Routing Algorithms)		
16	11	Network Layer (IPv6 Functions)		
17	11	Data Link Layer (Addressing, ARP and Ethernet)		
18	12	Wireless		
19	12	Wireless		
	13			
13 CENTRAL FINAL EXAM				

Tentative Grading Procedures:

	For CSE421 (%)	For EEE465 (%)
Final	35	35
Midterm	24	24
Quiz	15	15
Assignment	4	4
Moral Assignment	2	2
Lab	15	15
Attendance	5	5

*Participation marks will be decided based on the number of lectures **attended**, **punctuality** of arrival, and **proportion** of in-class assignments completed.

The Stuff...

1. Rationale:

Information and communication are two of the most important strategic issues for the success of any organization. Effective usage of information technology, and computer networks is necessary. So this course provides an introduction to fundamental concepts in the design and implementation of computer communication networks, their protocols, and applications.

2. Course Aims and Outcomes:

a. *Aims*

Topics to be covered include: Routing and forwarding, intra-domain and inter-domain routing algorithms. Also includes the operation of IP data networks, LAN switching technologies, IPv6, IP services network device security, and basic troubleshooting. Examples will be drawn primarily from the Internet protocol suite.

Learning this course content validates your ability to install, configure, operate, and troubleshoot routed & switched networks. You shall be able to make connections to remote sites via a wide area network (WAN), mitigate basic network security threats, and understand fundamental networking concepts and terminology.

b. *Specific Learning Outcomes:*

- Advanced knowledge of computer networks and their applications.
- Understand the Layered Architecture of Computer Networks.
- Understand the operation of the main components of computer networks.
- Learn various network protocols and algorithms.
- Acquire the required skill to design medium-sized computer networks.

- Become familiar with security risks threatening computer networks

3. Format and Procedures:

For best results, students should read the textbook prior to coming to class, participate actively in the lecture, and revise the topics once they go back from class. A list of topics to be covered, along with an expected timeline, will be provided in class in order to facilitate this. Details about the textbook will be discussed in class. Students will also be encouraged to read current networking trends and innovations and each class will start with a small discussion on that. After completion of each chapter, assignments will be done in class to fine-tune any misconceptions.

4. My Stance

- Interactive discussion encouraged.
- Oral questions will be asked to stimulate students.
- In-class problem-solving assignments.
- There will be at least **four (4)** quizzes in total. If the total number of quizzes taken is **N, N-x** (where x is a random number I choose at the end of the semester) quizzes will be considered when calculating your final grade.
 - To be eligible for counting the best of quizzes, one MUST appear in N-1 quizzes, else all quizzes will be counted when grading for the final marks.

5. Eligibility for Makeups(Quiz/Midterm)

- In case of any sort of sickness (must provide valid medical documents).
- In case of family emergencies
 - Death of a relative
 - Medical emergency
 - Special events
 - Major family event
 - Relative visiting from abroad
 - Medical emergency of a relative (documentation required)
 - Wedding ceremonies (only if it's your sibling)
- Obostha bujhe bebostha.

6. Course Requirements:

Class attendance and participation policy: While attending lectures and being punctual is mandatory, just passively sitting in class will not be conducive to learning. Students are expected to ask questions and are encouraged to have discussions in class about the material being covered. This will be done a lot more productively if students read the textbooks prior to coming to class, and also review material already covered in class once they are back home.

7. Academic Integrity (example given below may be modified)

Each student in this course is expected to abide by the BRAC University Code of Academic Integrity. Any work submitted by a student in this course for academic credit will be the student's own work.

You are encouraged to study together and to discuss information and concepts covered in the lecture with other students. You can help out or receive help from other students in the form of consultation and guidance. However, this permissible cooperation should never involve one student having possession of a copy of all or part of work done by

someone else, in the form of an e-mail, an e-mail attachment file, or any form of electronic or hard copy.

If copying occurs, both the student who copied work and the student who gave material to be copied will automatically receive a zero for the assignment. Penalty for violation of this Code can also be extended to include failure of the course and University disciplinary action.

During examinations, you must do your own work. Talking or discussion is not permitted during the examinations, and you may not compare answers, copy from others, or collaborate in any way. Any collaborative behavior during the examinations will result in failure of the exam and may lead to failure of the course and University disciplinary action.

8. Accommodations for students with disabilities

I am available to discuss appropriate academic accommodations that may be required for students with disabilities. Requests for academic accommodations are to be made during the first three weeks of the semester, except for unusual circumstances, so arrangements can be made.

