

1. General Information

Course Subject	IIMT
Course Number	3604
Course Title	Telecommunications management
Academic Years	2024-2025
Grading Method	Letter

2. Instructors

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4. Course Description

Course Description	This course introduces telecommunications and computing networks used in the support of business activities. Topics include data, voice, image and communication technologies; networking and communication architectures; and protocols and standards.
Prerequisites	IIMT2601: Management Information Systems
Mutually exclusive	COMP3234

5. Course Objectives

1. Provide students with the opportunity to learn the basic concepts of telecommunications and network management.

2. Provide students with hands-on experience in designing business communications networks.

3. Help students understand the role of networks in various types of information systems and its importance in real world applications.

4. Raise students' awareness of the importance of network security.

6. Faculty Learning Goals

Goal 1: Acquisition and internalization of knowledge of the programme discipline

Goal 2: Application and integration of knowledge

Goal 3: Inculcating professionalism

Goal 4: Developing global outlook

Goal 5: Mastering communication skills

6. Faculty Learning Goals

Goal 6: Cultivating leadership

7. Course Learning Outcomes

Course Teaching and Learning Activities		Aligned Faculty Learning Goals					
		2	3	4	5	6	
CLO1. Explain the network infrastructure and the Internet protocols.	✓				✓		
CLO2. Identify the key issues that need to be considered and measures that need to be adopted for providing secure communication services for businesses.	•		•		✓	✓	
CLO3. Decide the tradeoffs of parameters for effective design of local and wide area networks.	✓	✓					
CLO4. Demonstrate a solid understanding of global issues as they relate to practices in business telecommunications.	✓	✓		✓		✓	
CLO5. Explain the threats to network security and devise effective security measures.	✓	~	~		✓		

8. Course Teaching and Learning Activities		
Course Teaching and Learning Activities #	Expected Study Hours	Study Load (% of study)
T&L1. Interactive lectures Lectures: basic concepts and knowledge will be presented in-class through powerpoint slides. In-class exercises: basic concepts and techniques are illustrated using	36	30
examples. Students work along with the lecturer to solve the problems. These exercises help students follow the lectures closely and actively. In-class discussions: sometimes discussion questions are raised by the lecturer. Students are encouraged to participate in discussions and share opinions with their peers. These discussions encourage students to think more for certain arguable topics. Demonstration: live demonstrations of software and technologies will be given in class to show students how they work.		
T&L2. Tutorial and online discussions	12	10
Tutorial lab sessions: Students practice concepts learned in class in the computer lab and work on examples with the tutor. Online discussions: students express and share their ideas and questions online. These discussions encourage students to think about the class materials after class.		
T&L3. Assignments and group activities	36	30
Assignments: Students accomplish tasks and solve problems using knowledge covered in class. Group activities: Students form group to conduct class activities to review the concepts and knowledge covered in class in an interactive way.		
T&L4. Self-study and written examination	36	30

8. Course Teaching and Learning Activities		
A written exam will test students' knowledge of the topics covered in class and their application of the knowledge.		
	Total: 120	Total: 100

9. Assessment Methods				
Assessment Methods	Description	Weight %	Aligned Course Learning Outcomes	
A1. Assignments	Two individual assignments will be given. Students will have approximately two weeks to complete each assignment. Make sure to work on the assignments individually and do not share with others. Please be prompt in submitting assignments. If a submission is late for 24 hours or less, 20% will be deducted. If a submission is late for more than 24 hours, no credit will be given.	30%	1,2,3,4,5	
A2. Class Activities	Students are asked to form groups and each group will design and lead class activities on one of the course topics during the semester. The exact details of what to do for class activities will be discussed later on.	20%	1,2,3,4,5	
A3. Class Participation	Class participation will be assessed based on both participation inside classroom (in-class discussion) and outside classroom (online discussion).	10%	1,2,3,4,5	
A4. Final Exam	There will be a written exam. Students must receive permission to take an exam at a different time at least one week prior to the scheduled date and have a documented emergency. Failure to do so will result in a zero for the exam. Other exams/projects during the same week do not constitute a valid excuse.	40%	1,2,3,4,5	

10. Course Grade Descriptors

A+,A,A-	demonstrate a clear understanding of and high ability to apply the theory, concepts and issues relating to the topic
B+,B,B-	demonstrate a good understanding and some application of the theory, concepts and issues relating to the topic
C+,C,C-	demonstrate a good understanding of the theory, concepts and issues relating to the topic but limited application relating to the topic
D+,D	demonstrate mainly description showing basic understanding of the topic but no application
F	demonstrate limited understanding of the topic and draw conclusions unrelated to the topic

11. Course Content and Tentative Teaching Schedule		
Topic/ Session	Content	Assignments
1	Course Introduction	

11. Course Content and Tentative Teaching Schedule		
2	Welcome to the Cloud (Ch. 1)	
3	Network Standards (Ch. 2)	
4	Network Security (Ch. 3)	
5	Network and Security Management (Ch. 4)	
6	Ethernet Switched LANs (Ch. 5)	
7	Reading Week	
8	Wireless LANs I (Ch. 6)	Assignment 1
9	Wireless LANs II (Ch. 7)	
10	TCP/IP Internetworking I (Ch. 8)	
11	TCP/IP Internetworking II (Ch. 9)	
12	Carrier Wide Area Networks (Ch. 10)	Assignment 2
13	Written Exam	

12. Required/Recommended Readings & Online Materials

Reading

The Analytics Edge. Dimitris Bertsimas, Allison K. O'Hair, and William R. Pulleyblank. Dynamic Ideas LLC., 2016.

13. M	13. Means / Processes for Student feedback on Course		
✓	Conducting mid-term survey in additional to SETL around the end of the semester		
	Online response via Moodle site		
	Others		

14. Course Policy

- Academic dishonesty includes cheating, plagiarism, unauthorized collaboration, falsifying academic records, and any act designed to avoid participating honestly in the learning process. Academic dishonesty also includes, but is not limited to, providing false or misleading information to receive a postponement or an extension on an exam or other assignment.
- 2. An orderly learning environment is extremely important for this course. Disruptive behaviors are inconsiderate to other students as well as to the instructor, and are absolutely unacceptable. Talking during lectures, arriving to class late, and any other disruptions of mobile devices are not allowed; students who are responsible for any of these actions will be subject to academic penalty and will be asked to leave the classroom.

15. Additional Course Information

- 1. Lecture notes and self-learning materials will be uploaded on Moodle.
- 2. No late assignment submission will be accepted.
- 3. The instructor reserves all the rights to make necessary changes to the syllabus. If so, the changes will be announced as soon as possible.