

Table Of Contents

Introduction.....	2
1. Lecturer Information.....	2
2. Pre-Requisites For This Module.....	2
3. Aims Of This Module.....	2
4. Course Learning Outcomes, (CLOs).....	2
5. Mapping of CLOs with MOEs Domain.....	3
6. Teaching Strategies.....	4
7. Assessment Methods.....	4
8. Student Learning Time (SLT).....	4
9. Methods of Delivery.....	4
10. Outcomes Based Education (OBE).....	4
11. Course Content Outline.....	5
12. What Is Expected Of You.....	5
13. What Support Is Available For You.....	6
14. Achievement Requirements.....	6

Introduction to Networking

CT043-3-1

1. Lecturer Information

- Lecturer Name: [REDACTED]
- Email: [REDACTED]
- Telephone Extension: -

2. Pre-Requisites For This Module

- Nil

3. Aims Of This Module

- Provide an insight into the **basic concepts** of data **communications**.
- Provide an understanding of networking, both **Local and Wide Area Networks**.
- Introduce students to standards and **protocols** used in data communication and networking and, in particular, the basic principles of the ISO-OSI Reference Model.

4. Course Learning Outcomes, (CLOs)

At the end of this module, YOU should be able to:

- Explain the fundamental principles of current network operation including the standards and protocols used in data communication. (C2, PLO1)
- Form the local area network design and **configuration** using a simulation tool for the given scenario (A2, PLO6)
- Work in a team to justify the **topology and IP addressing plan** based on the **network design** (A3, PLO4)

5. Mapping of CLOs with MOEs Domain

Course Learning Outcomes	Programme Learning Outcomes (PLO)			Teaching Methods	Assessment Methods		
	Knowledge and Understanding	PLO 1	✓			CLO1	
	Cognitive Skills	PLO 2	✓				CLO2
	Practical Skills	PLO 3					
	Interpersonal Skills	PLO 4				CLO3	
	Communication Skills	PLO 5	✓				
	Digital Skills	PLO 6					
	Numeracy Skills	PLO 7					
	Leadership, autonomy and responsibility	PLO 8					
	Personal Skills	PLO 9					
	Entrepreneurial Skills	PLO 10					
	Ethics and professionalism	PLO 11					
Mapping with MQF Cluster of Learning Outcomes	C1						
	C2						
	C3C						

6. Teaching Strategies

- Lecture
- Tutorial
- Case Study (Individual and Group)
- Group Discussion

7. Assessment Methods

- Final Exam (50%): CLO1
- Group Assignment (50%)
 - Apply suitable topology, IP addressing scheme and configuration techniques in a network design based on the given scenario (CLO)
 - Present network design and configuration using simulation tool (CLO3)

8. Student Learning Time (SLT)

- **Course Credit Value:** 3
- **Total Learning Hours:**
 - Lecture: 28 hours per semester
 - Tutorial / Case Study: 21 hours per semester
 - Independent Learning Time: 49 hours

** Tutorials to be conducted in Labs

9. Methods of Delivery

- Hence, We are now moving from traditional topic-based teaching to outcome-based education

10. Outcomes Based Education (OBE)

OBE is education based on producing educational outcomes that:

- Focus on what students can actually do after they are taught
- Expect all learners/students to successfully achieve a (sometimes minimum) level of knowledge and abilities.

11. Course Content Outline

- CLO1: Final Exam (50%)
 - Lecture
 - Introduction to Networks
 - Network Protocols and Communications
 - Network Access
 - Ethernet
 - Network Layer
 - Transport Layer
 - Application Layer
 - Tutorial
 - Data Communication Concepts
 - OSI Model and TCP/IP model

- CLO2 & CLO3 : Group Assignment (50%)
 - Tutorial / Case Study / Group Discussion
 - Configure Network Operating System
 - IP Addressing
 - Case Study : Subnetting IP Networks
 - Build a Small Network
 - Topology / Transmission Medium / Network Devices
 - Networking Trends
- *to be conducted in labs

12. What Is Expected Of You

You should abide by all the rules & regulations of APU

- Proper attire
- No speaking of dialects
- Attendance is compulsory and valid medical certificates or letters from parents /guardians must support any absence from class.
- Three lateness will be equal to one absence
- All pagers and handphones should be turned off during lectures.

13. What Support Is Available For You

- **Consultation Hours**
- **Resources**
 - Reference material
- **Essential Reading**
 - Cisco Networking Academy (2016). Introduction to Networks V6 Companion Guide. United States: Cisco Press. ISBN: 978-1587133602.
 - Lammle, T. (2016). CCNA Routing and switching Complete Study Guide. 2nd ed. Indiana: Sybex (Wiley). ISBN: 978-1119288282.
- **Internet Resources**
 - Access to Cisco Networking Academy Platform - CCNA 1.
 - Cisco Packet Tracer.

14. Achievement Requirements

Undergraduate:

Marks	Alphabetical Grade	Grading Point	Classification
80-100	A+	4.0	Distinction
75-79	A	3.7	
70-74	B+	3.3	Credit
65-69	B	3.0	
60-64	C+	2.7	Pass
55-59	C	2.3	
50-54	C-	2.0	
40-49	D	1.7	Fail (marginal)
30-39	F+	1.3	Fail
20-29	F	1.0	Fail
0-19	F-	0	Fail