

# ICT210e Computer Communication - Computer Networking

**Level:** 2

**Credit Units:** 5 Credit Units

**Language:** ENGLISH

**Presentation Pattern:** EVERY SEMESTER

**E-Learning:** BLENDED - Learning is done MAINLY online using interactive study materials in Canvas. Students receive guidance and support from online instructors via discussion forums and emails. This is supplemented with SOME face-to-face sessions. If the course has an exam component, this will be administered on-campus.

## **Synopsis:**

This course introduces various types of computer networks including wide area networks and local area networks, their architectures and protocols. Topics include circuit switching, packet switching, X.25, LAN technology, Ethernet, bridges, switches and TCP/IP protocols.

## **Topics:**

- Circuit Switching and Packet Switching
- Routing in switched networks
- Local Area Networks
- High Speed LANs
- Internet Protocols
- Transport Protocols

## **Textbooks:**

William Stallings: Data and Computer Communications 10th edition Pearson (2014)  
ISBN-13: 9781292014388

William Stallings: Data and Computer Communications 10th edition Pearson (2014)  
ISBN-13: 9781292014388-AA

**Learning Outcome:**

- Explain wide area networks and related circuit switching and packet switching techniques
- Analyze routing techniques and least-cost paths
- Discuss Local Area Networks and Gigabit Ethernet
- Illustrate the operations of bridges and switches
- Explain wireless LAN technology and applications
- Outline the concepts of Internet and TCP, UDP transport protocols
- Review technical descriptions of present and future digital communication techniques, networks and services
- Analyze and design networking applications in organizations
- Implement different communication options within an organization

**Assessment Strategies:**

<b>Continuous Assessment Component</b>	<b>Weightage (%)</b>
PRE-CLASS QUIZ	2
QUIZ	6
TUTOR-MARKED ASSIGNMENT	18
PRE-CLASS QUIZ	2
PRE-CLASS QUIZ	2
<b>Sub-Total</b>	<b>30</b>

<b>Examinable Component</b>	<b>Weightage (%)</b>
Written Exam	70
<b>Sub-Total</b>	<b>70</b>

**Weightage Total** **100**