

ICT209 Computer Communication - Data Communications

Level: 2

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY SEMESTER

Synopsis:

This course provides an overview of the data communications fundamentals. ITopics include basic communication concepts, TCP/IP and OSI reference models, data transmission concepts, channel capacity, data encoding and interfacing techniques, error detection, data link control and multiplexing techniques.

Topics:

- Data Communications concepts and protocol architecture
- Data transmission
- Signal encoding technique
- Digital data communication techniques
- Data link control protocols
- Multiplexing

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:

- Describe the general concepts of data communications, networks, Internet, TCP/IP protocols
- Differentiate between analog and digital transmissions, transmission impairment and channel capacity
- Compare various line encoding and modulation techniques
- Distinguish asynchronous and synchronous transmissions
- Distinguish flow control and error control techniques in communications
- Describe the popular high-level data link control (HDLC) protocols
- Compare various multiplexing techniques, ADSL and cable modem
- Apply error detection techniques to communications
- Apply channel capacity theories and flow/error control techniques to practical problems

Assessment Strategies:

Continuous Assessment Component	Weightage (%)
QUIZ	9
TUTOR-MARKED ASSIGNMENT	21
Sub-Total	30

Examinable Component	Weightage (%)
Written Exam	70
Sub-Total	70

Weightage Total **100**