COUNCIL OF COMMUNITY COLLEGES OF JAMAICA

MODULE NAME: Data Communication & Networks

MODULE CODE: CSYS2302

CREDIT STATUS: 3 Credits

PRE-REQUISITE:

CO-REQUISITE:

MODULE DESCRIPTION

This module seeks to familiarize the student with terminologies and capabilities of data communication. It seeks to expose the student to some of the various types of hardware, which is used. The student will be exposed to different types of computer networks and will develop a better understanding of the importance of the role of computers in distributed processing and its implications for the business world. On completion of this module students should be able to answer a variety of questions relating to Data Communication and Computer Networks in general.

OBJECTIVES:

1. To familiarize the student with terminologies and capabilities of data communication.
2. Be able to participate in decisions regarding alternative configurations of data communications components.
3. Understand the role of computers in distributed processing and its implications to the business world.

TOPIC OUTLINE:
Part 1: Introduction to Data Communication

1. Overview and History of Data Communication
2. Communications Parameters
   - Signal representation and modulation Wave characteristics and parameters
   - Parallel & serial transmission
   - Data speed
   - Synchronous and asynchronous transmission
   - Half and full-duplex transmission
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3. Data Communication Hardware
   - Multiplexors
   - Concentrators
   - Front-end processors
   - Protocol converters
   - Diagnostic equipment

- Interface equipment

5. Data link Protocols
   - Synchronous protocols
   - Isochroous protocols
   - CSMA/CD protocols
   - Other Protocols

PART II: Networks and Distributed Processing

6.   Introduction to networks and packet switching
      Topologies OSI standards SNA and others

7. LANS & MANS
      topologies and mode of operations
8. WANS
9. Micro-computers in Network
   - Applications eg. electronic mailing
   - Micro to micro configuration
   - Micro to mainframe
   - Interfacing and configurations
10. Distributed Database Systems
11. Network Software
   - Study of the nature of network packages such as Novell Netware
12. Security and Data Recovery
   - Encrypted
13. The role of the Analyst
   - Systems design
   - System management

TEXT:
Crichlow, J. M.[2000]An Introduction to Distributed Data
Processing. Prentice hall Pub. USA

MODE OF INSTRUCTIONS:
Lecture

PROMOTION POLICY:
Student must have 60% average in both tests and assignments to pass.

MODE OF EVALUATION:

Mid-semester Test	20%
Course Work	20%
Final Exam	60%