SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Outline: TELECOM AND AUTOMATION
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Code No.:   BUS 318-3
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Program: PROGRAMMER ANALYST
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Semester: VI
_____

Date: JANUARY, 1985
_____

Author   J. WIED
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              New: _____   Revision: _____

APPROVED: _____   _____
           Chairperson   Date

TELECOM & AUTOMATION	BUS 318-3
Course Name	Course Number

COURSE DEFINITION:

This course will explore the future dirctins of the information society. Office manufacturing automation and advances in machines, talking to machines, etc. will be studied.

AIM:

To build upon the basic principles and terminology covered in telecommunications and futuristics and further explore the use of this technology in disseminating the inexhaustable information to people who can use it. The specific systems, media and technologies will be explored in greater depth providing an awareness of the implications of voice, data-image transmissions and the total system integration provided by these facilities.

TEXTBOOK: "Introduction to Business Telecommunications" by George W. Reynolds; C.E. Merrille Publishing Company

REFERENCES:
1. Industry Periodicals
2. Designing and Implementing LAN - by Dr. Chorafas
3. Data Communications - by Loomis
4. Data Communications - by K. Sherman
5. Computer Communications Vol I - Wushow Chou, editor

STUDENT EVALUATION:

- Test and Quizzes   - 80%
- Projects, Participation
  & Attendance   - 20%
                              ‾‾‾‾
                              100%

The student will be responsible for reading the textbook PRIOR to lectures.

GRADING:

- "A" - 80 to 100%
- "B" - 70 to 80%
- "C" - 60 to 70%
- "R" - under 60%

REFERENCE	TOPIC	CONTENT
CH. 1	Business Telecommunications	- the 3 components of Tele-communication - the characteristics of an effective communications system - the rationale for Tele-communications - Merging the computers and Telecommunications - Regulation & Deregulation

ASSIGNMENT #1 - Research current trends in deregulation in CANADA, identifying the impact on business and private users.

REFERENCE	TOPIC	CONTENT
CH 2	Telecommunication Concepts	- Review types of channels, transmissions modes, protocols - Analog signals - Digital signals - Modulation Techniques
CH 3	The Public Telephone System	- Historical overview - The Hierarchy of Switching Offices - Long Distance Services and Microwave - Costs and Services

ASSIGNMENT #2 - Examine services provided by Bell and CN/CP in CANADA
(Use either primary or secondary sources)

REFERENCE	TOPIC	CONTENT
CH 4	Radio and Satellite Communcation	- Geostationary satellite orbit and its significance in satellite communication - Satellite cost vs. earth station cost
CH 5 & 6 - Chou Ref Text		- Advantages & disadvantages of satellite and radio communication - Define digital termination systems and identify five
CH 5	PABX: The Private Automatic Branch Exchange	- The interconnact industry - The role of PABX - Parallel voice and data networks - PABX vs. key systems - Evaluation and selection of telephone systems

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CH 6   LAN: Local Area Networks   - Definition and justific-
                                                      ation of LAN's
                                                    - LAN options

ASSIGNMENT #3 - Research and determine what Canada has to offer in LAN's

CH 9   "The Wired World" - Applications
  10   & Total Integration: Voice, Data
  11   Image   - DDP, PSN's & VAN's
  12   distributed data base
                                                    - WP, shared logic systems,
                                                      integration
                                                    - Office Automation,
                                                      electronic mail and
                                                      Teleconferencing
                                                    - Videotext

CH 9   Security in Computer
                Computer Systems   - Threats, vulnerability
                                                      and Security goals
                                                    - Physical Security
                                                    - Logical Access Control
                                                    - Data Encryption
                                                    - Management Practice

(Chou Ref Text)

ASSIGNMENT #4 - Through secondary research evaluate and draw inferences
                and conclusions on **ONE** of the following:

1. When do companies usually evaluate security and/or establish adequate
    security.
2. What techniques are usually applied or may be applied in the future,
    for security.
3. Which makes most sense to society:
    a) prevent implementation of telecommunication systems which
        threaten security; **OR**
    b) establish more rigid controls and/or spend the money, time,
        etc. to implement good security systems

SUBJECT TO MODIFICATION