

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

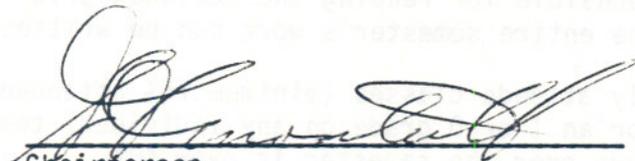
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: TELECOMMUNICATIONS AND FUTURISTICS  
Code No.: EDP 315-4  
Program: ELECTRONIC DATA PROCESSING  
Semester: \_\_\_\_\_  
Date: SEPTEMBER 1984  
Author: G. M. WIED

New: X Revision: \_\_\_\_\_

APPROVED:

  
Chairperson

84.06.11  
Date

TELECOMMUNICATIONS & FUTURISTICS

Course Name

EDP 315-4

Course Number

COURSE DESCRIPTION:

A study of the process of transmission, processing and distribution of information using computers and telecommunication hardware and facilities. Future implications will be introduced including an investigation of TELIDON and its implications for the information society.

AIM:

To familiarize students with concepts and terminology as they apply to the expanding field of communications using computers and telecommunication technology. The course is also aimed at providing students with an awareness of the information society and the applications of telecommunications theory in this changing environment.

STUDENT EVALUATION:

Term Test and Quizzes	80%	<u>OR</u>	Term Tests	40%
Projects, Participation,			Projects, etc.	20%
Attendance	<u>20%</u>		Final Test	<u>40%</u>
	100%			100%

The student will be responsible for reading the textbook prior to lectures. A final test covering the entire semester's work can be written only if:

- 1) student regularly attends classes (minimum 75% attendance);
- 2) to substitute for an I or O grade on any individual test;
- 3) the achieved grade over the semester is over 40%.

GRADING:

A	-	80 to 100%
B	-	70 to 79%
C	-	55 to 69%
MAY WRITE FINAL IF		40 to 55%
R	-	under 40%

TEXTBOOK:

Data Communications and Teleprocessing Systems

Trevor Housley, Prentice Hall, 1979

REFERENCES:

Introduction to Computers and Data Processing - CH8

Shelly and Cashman

Computers and Life

J. Frates and Wm. Moldrup

Introduction to Business Telecommunications

George W. Reynolds

Data Communications

Loomis

SPECIFIC OBJECTIVES

<u>TOPIC</u>	<u>REFERENCE</u>	<u>CONTENT</u>
1	Shelly & Cashman Chapter 8	<u>Introduction to Telecommunications</u>
	Lecture Notes	1) WHAT, WHY, WHERE of tele-communications systems <ul style="list-style-type: none"><li>- definition and characteristics</li><li>- the enhancements it provides to business operations</li><li>- applications: internal and external</li></ul>
		2) Basic Configuration <ul style="list-style-type: none"><li>- transmitter</li><li>- modem</li><li>- channels (data links)</li><li>- C.C.U. (communication control unit)</li><li>- function of the computer</li></ul>
		3) Overview of Terminology <ul style="list-style-type: none"><li>- per speeds</li><li>- modes of transmission</li><li>- line types and configuration</li><li>- types of networks</li></ul>
2	Housley Chapter 1	<u>Basic Theory</u> <ul style="list-style-type: none"><li>- transmission definitions</li><li>- transmission codes and control characters</li><li>- transmission modes</li></ul>
3	Housley Chapter 2	<u>Network Components and Configurations</u> <ul style="list-style-type: none"><li>- hardware: terminals, modems, multiplexers, interfaces, etc.</li><li>- configurations: star, ring, pt-to-pt and multipoint, etc.</li></ul>
4	Housley Chapter 3	<u>Error Detection Techniques</u> <ul style="list-style-type: none"><li>- detecting errors</li><li>- methods of error control</li></ul>

<u>TOPIC</u>	<u>REFERENCE</u>	<u>CONTENT</u>
5	Housley Chapter 4	<u>Network Protocols and Line Control Procedures</u> <ul style="list-style-type: none"><li>- architecture</li><li>- protocols</li><li>- polling techniques, etc.</li></ul>
6	Housley Chapter 5	<u>Common Carrier Facilities</u> <ul style="list-style-type: none"><li>- networks</li><li>- packet switching, etc.</li></ul>
7	Housley Chapter 6	<u>System Planning Considerations</u> <ul style="list-style-type: none"><li>- management concerns</li><li>- performance criteria</li></ul>
8	Industry Periodicals & Research Papers  Computers & Life	<u>Information Society</u> <ul style="list-style-type: none"><li>- TELIDON</li><li>- office automation</li><li>- electronic mail</li><li>- micros and home computers</li><li>- integration of voice, data and image systems</li></ul>
9	Industry Periodicals & Research Papers  Computers & Life	<u>Special Applications</u> <ul style="list-style-type: none"><li>- ROBOTICS, Process Control</li><li>- CAD/CAM</li><li>- CAI, CMI</li><li>- EFT</li><li>- Medicine, etc.</li><li>- the Fourth and Fifth Generation Software</li></ul>

