SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE:	MICROCOMPUTER SYSTEMS II
CODE NO.	CET226
PROGRAM:	COMPUTER ENGINEERING TECHNOLOGY
SEMESTER:	FOUR
DATE:	JANUARY, 1987
AUTHOR:	PETER SAVICH

COURSE OUTLINE

THE OBJECTIVES OF THIS COURSE ARE TO DEVELOP A THOROUGH KNOWLEDGE OF A TYPICAL MICROCOMPUTER SYSTEM, THE IBM PC. THIS UNDERSTANDING WILL BE DEVELOPED THROUGH THE USE OF THE MICROSOFT ASSEMBLER TO WRITE AND TEST MACHINE LANGUAGE PROGRAMS THAT UTILIZE THE SYSTEM. THE USE OF DOS AND BIOS SERVICES, AND THE PROGRAMMING OF THE STANDARD SYSTEM PERIPHERALS WILL PROVIDE THE STUDENT WITH THE ABILITY TO DEVELOP SYSTEMS PROGRAMS, AND TO DEAL WITH PERIPHERALS AT THE MACHINE LANGUAGE LEVEL.

METHOD OF ASSESSMENT

THE STUDENT WILL BE ASSESSED THROUGH A SERIES OF WRITTEN TESTS (4), QUIZES (4), PRACTICAL DEMONSTRATIONS, ASSIGNMENTS, AND ATTENDANCE.

ALL TESTS AND ASSIGNMENTS WILL BE CONDUCTED ON A TIMELY BASIS WITH ONE WEEKS NOTICE.

ALL QUIZES AND PRACTICAL DEMONSTRATIONS WILL BE GIVEN WITH NO ADVANCE NOTICE.

ALL ASSIGNMENTS WILL BE OF EQUIVALENT VALUE.

ATTENDENCE IN ALL LABS AND CLASSES IS EXPECTED. A STUDENT WITH LESS THAN 80% ATTENDENCE WILL RECIEVE NO MARK FOR ATTENDENCE.

RE-WRITES WILL BE AVAILABLE FOR ALL WRITTEN TESTS. THE TOP MARK AVAILABLE FROM ANY RE-WRITE IS 65%.

THE FINAL MARK WILL BE CALCULATED USING THE FOLLOWING FORMULA:

FOUR WRITTEN TESTS @ 15% EACH	60%
TEN ASSIGNMENTS @ 2% EACH	20%
FOUR QUIZES @ 2.5% EACH	10%
ATTENDENCE	10%
	100%

THE GRADING SYSTEM TO BE USED IS AS FOLLOWS:

PERCENTAGE MARK	GRADE MARK
80% - 100%	A
66% - 79%	B
55% - 65%	C
BELOW 55%	F

TEXTBOOK:

ASSEMBLER FOR THE IBM PC AND PC XT BY PETER ABEL RESTON

SPECIFIC COURSE OBJECTIVES

BLOCK I PC ARCHITECTURE AND THE 8088 INSTRUCTION SET

1. UNDERSTAND THE ORGANIZATION OF THE IBM PC, THE 8088 PROCESSOR AND ITS INSTRUCTION SET, AND THE ADDRESSING MODES OF THE 8088.
2. LEARN THE USE OF ASSEMBLER, LINKER AND SYMBOLLIC DEBUGGER
3. WRITE TEST PROGRAMS THAT EMPLOY BOTH ARITHMETIC AND LOGICAL INSTRUCTIONS
4. PERFORM I/O TO THE SCREEN AND KEYBOARD

NOTE: TEXT CHAPTERS 1 THRU 6 AND CHAPTERS 10 AND 11

BLOCK II ADVANCED PROGRAMMING TECHNIQUES

1. DEMONSTRATE TABLE HANDLING, STRING MANIPULATION
2. WRITE MACROS
3. USE SUBROUTINES AND LIBRARIES

NOTE: TEXT CHAPTERS 9, 12, 15, 16, AND 18

BLOCK III PROGRAMMING PERIPHERALS

1. USE DOS AND BIOS ROUTINES TO PERFORM I/O PROCESSING TO THE SCREEN, KEYBOARD, PRINTER, AND DISK
2. STUDY SEQUENTIAL AND RANDOM ACCESS TO FILES
3. STUDY THE USE OF BIOS INTERRUPTS
4. PROJECT WORK UTILIZING ALL FILE TYPES

NOTE: TEXT CHAPTERS 7, 8, 13, 14, 17, AND 19