

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Outline: PROGRAMMING LANGUAGES
Code No.: EDP 318-4
Program: PROGRAMMER/ANALYST
Semester: SIX
Date: FEBRUARY 1985
Author: DENNIS OCHOSKI

New: X Revision:

APPROVED:


Chairperson

85-02-21
Date

PROGRAMMING LANGUAGES

EDP 318-4

Course Name

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Length of Course: 5 periods per week for one semester (12 weeks)

Text: "Assembler for the IBM PC and PC-XT" by Peter Able

Other References: IBM Guide to Operations Manual
IBM DOS Manual

PURPOSE:

This course is designed to familiarize the student with the more technical aspects (architecture) of the computer, at the same time teaching the student a new programming language. This will be done through the use of Assembler Language.

The course begins with an overview of the binary and hexadecimal numbering systems so that the student can communicate with the computer on its own level. Students will learn how to use the assembler language and understand why it is more efficient than higher level languages.

OBJECTIVES:

When this course is completed, the student will be able to:

1. Understand the characteristics of the binary and hexadecimal numbering systems.
2. Code assembler language programs to handle the screen, perform arithmetic, perform table searches and sorts, and perform disk input and output.
3. Trace machine execution to aid in debugging programs.
4. Understand the difference between the DOS and CP/M operating Systems.

Student Evaluation:

The student's final grade will consist of the following components:

- tests (2x35)	-	70%
- assignments (3x10)	-	30%
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		100%

Assignment Deadlines: each assignment must be handed in ON TIME, other-

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wise a 5% deduction per day late is pending. If a student fails to hand i
an assignment, he/she is subject to receiving an "I" grade.

Grading:

"A" - 85 - 100%
"B" - 70 - 84%
"C" - 60 - 69%
"R" - 0 - 59%

Note: A Student will be allowed to do a re-write if:

1. He/she has a passing final grade and wishes to better that grade, or
2. He/she does not have a passing final grade and that grade is 50%
or better.

Material To Be Covered:

Abel Chapter 13 IBM Guide to Operations IBM DOS Manual	1	<u>Introduction to the PC</u> - operating the system - using DOS - copying to diskette
Able - Chapter 1,2	2	<u>The Binary and Hexadecimal Numbering Systems</u> - representing data - performing arithmetic - machine execution
Able - Chapter 3,4,5	3	<u>The Assembler Language</u> - introduction - steps in developing a program - source statements - assembler instructions - how to edit, assemble and run a program - data definition - program logic
Able - Chapter 6,8	4	<u>Other Features</u> - screen processing - printing
Able - Chapter 9,10,11	5	<u>The 8088 Instruction Set.</u> - addressing modes - instruction types - data transfer instructions - arithmetic instructions
Able - Chapter 12	6	<u>Table Processing</u> - table definition - table searching - ordered and unordered lists - sorting unordered lists