

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

COURSE OUTLINE

Course Outline: ADVANCED APPLICATION PROGRAMMING

Code No.: EDP 229

Program: PROGRAMMER

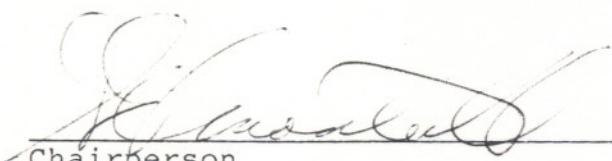
Semester: THREE

Date: SEPTEMBER 1988

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

APPROVED:

  
Chairperson

88-09-02  
Date

**ADVANCED APPLICATION PROGRAMMING**

**EDP 229**

**COURSE SYNOPSIS:**

The course will start with a review of material covered in the introductory COBOL course. The students will be introduced to a full range of file types available in the VAX 11/780. The students will also examine various data structures and manipulate and compare each. The course will also cover sort/merge utilities and the report writer. The applications will be geared to on-line projects and assignments.

**TEXTBOOK:** "STRUCTURED ANS COBOL, PART 2", M. Murach, P. Noll

**MODULE 1**

Review in detail elements of Cobol Language.

This module will reinforce what was learned in the Intro to Cobol Course.

**MODULE 2**

Will examine the REPORT GENERATOR.

At the end of this module, the student will be able to understand and apply the following:

1. Control breaks in report writing
2. logic of report programs
3. Report Writer with control breaks
4. Report Writer using declaratives
5. language specifications for the COBOL Report Writer

**MODULE 3**

Will examine screen management.

At the end of this module, the student will be able to understand and apply the following:

1. create input screens
2. generate menu screens
3. erase a screen, lines
4. control cursor positioning
5. special character attributes such as bell, underline, bold, blink, reverse
6. conversion clause
7. error handling and detecting

**MODULE 4**

Will examine sorting and merging.

At the end of this module, the student will be able to understand and apply the following:

- 1) various sorting algorithms
- 2) COBOL file-sort feature
- 3) SORT statement formats
- 4) file merging

**MODULE 5**

Will examine table handling.

At the end of this module, the student will be able to understand and apply the following:

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- 1) table definitions in COBOL
- 2) the OCCURS clause
- 3) the PERFORM verb and table handling
- 4) table searching
- 5) indexing, subscripting, and searching

**MODULE 6**

Will examine file organizations.

At the end of this module, students will be able to understand and apply the following:

- 1) difference between sequential and indexed sequential file organization.
- 2) updating an indexed sequential file
- 3) COBOL language instructions for indexed file
- 4) relative file organization

**MODULE 7**

Will examine subprograms.

At the end of this module, the student will be able to understand and apply the following:

- 1) calling sub-programs into a main program
- 2) transfer of control
- 3) sample main and subprogram structure

MODULE 8

Will examine program testing.

At the end of this module, the student will be able to understand and apply the following:

- 1) top-down program development and testing
- 2) bottom-up program development and testing
- 3) top-down vs bottom-up approaches to testing
- 4) testing procedures
- 5) VAX interactive debugger
- 6) common errors

STUDENT EVALUATION

The students final grade will be determined from the following components:

<b>A)</b>	Tests (3 @ 20%)	- 60%	<b>B) <u>Grading:</u></b>	"A+" - 90-100%
	Assigments (2 @ 6%)	- 12%		"A" - 80- 89%
	Project (1 @ 25%)	- 25%		"B" - 70- 79%
	Participation	- 3%		"C" - 55- 69%
		<hr/>		"R" - 0- 54%
		100%		

**NOTE:** Students are expected to attend class regularly and to participate in class discussion. They are also expected to treat their peers and instructors in a professional businesslike manner during class time. Late assigments are subject to a zero grade unless the student has **PRIOR** permission from the instructor to hand the assignment in at a later date.

**There will be no rewrites in this course.**