

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

COURSE OUTLINE

COURSE TITLE: ADVANCED APPLICATION PROGRAMMING  
CODE NO. EDP229  
PROGRAM BUSINESS PROGRAMMER  
SEMESTER FOUR  
DATE JANUARY, 1992  
AUTHOR FRAN DEW

NEW \_\_\_\_\_ REVISION X

APPROVED

  
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DEAN, BUSINESS AND HOSPITALITY

92-01-06  
DATE

ADVANCED APPLICATION PROGRAMMING  
COURSE NAME

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CODE NO.

Total credit time: 90 hours

Prerequisites: EDP112

**I PHILOSOPHY/GOALS:**

This course continues the study of structured analysis and programming techniques utilizing COBOL, begun in the previous semester. Emphasis is placed upon structured design, top-down developments, program constructs, pseudocode, structure charts, etc. These tools are applied to a variety of case studies involving file maintenance (including index sequential files) and table look-ups.

**II STUDENT PERFORMANCE OBJECTIVES:**

Upon successful completion of this course, the student will be able to:

- a Build on COBOL programming features learned in the previous semester
- b Process arrays and handle tables
- c Process indexed files and interact with the computer
- d Utilize features such as Report Writer, COPY and CALL
- e Process relative files

**III TOPICS TO BE COVERED**

- 1. Report Writer Module
- 2. Interactive Processing
- 3. Single-level Arrays and Tables
- 4. Multiple-level Arrays and Tables
- 5. Using Advanced Debugging Aids and Improving Program Performance
- 6. The COPY and CALL statements
- 7. Sequential File Processing (review)
- 8. Indexed File Processing
- 9. Relative File Processing

**IV LEARNING ACTIVITIES**

## 1. Report Writer Module Ch 20

Upon successful completion of this unit, the student will be able to:

- a use the Report Writer Module for printing reports

## 2. Interactive Processing Ch 17

Upon successful completion of this unit, the student will be able to:

- a design screen layouts so that the operator can interact with a computer at a terminal
- b handle input and output, and manipulate text

## 3. Single-level Arrays and Tables Ch 12

Upon successful completion of this unit, the student will be able to:

- a access and manipulate data stored in an array of table
- b establish a series of single-level items
- c use commands for table look-up

## 4. Multiple-level Arrays and Tables Ch 13

Upon successful completion of this unit, the student will be able to:

- a establish a series of double-level items
- b store and look up data in a double-level table or array
- c access and manipulate data defined with a triple level

## 5. Using Advanced Debugging Aids and Improving Program Performance Ch 18

Upon successful completion of this unit, the student will be able to:

- a use techniques to debug programs
- b improve program efficiency

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6. The COPY and CALL statements Ch 19

Upon successful completion of this unit, the student will be able to:

- a copy standard parts of a program from a library
- b execute subroutines

7. Sequential File Processing (review) Ch 14

Upon successful completion of this unit, the student will be able to:

- a understand master file processing concepts
- b update sequential files using disk as a master file
- c update sequential disk files in place with a REWRITE statement

8. Indexed File Processing Ch 16

Upon successful completion of this unit, the student will be able to:

- a randomly process disk files
- b create and access indexed disk files

9. Relative File Processing Ch 21

Upon successful completion of this unit, the student will be able to:

- a create, update and use relative files for reporting
- b organize relative files

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**V EVALUATION METHODS**

Tests (3 @ 20%)	60%
Assignments	20%
Project	15%
Participation	5%
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	100%

Grading: A+ 90 and over  
A 80 and over  
B 70 and over  
C 55 and over  
R under 55

\*\*\*\*NOTE Five bonus marks can be earned by submitting summaries of articles dealing with programming in COBOL and by reporting on seminars attended during the term.

**VI REQUIRED STUDENT RESOURCES**

Text: "Structured COBOL Programming" 6th Edition  
by Stern and Stern  
1991

available in the Campus Shop

**VII SPECIAL NOTES**

Assignments received after the due date are subject to a zero grade, unless the student has prior permission from the instructor to hand the assignment in at a later date.

Students with special needs, such as physical limitations, visual impairments, hearing impairments, or learning disabilities, are encouraged to discuss required accommodations, confidentially, with the instructor.

Your instructor reserves the right to modify the course as s/he deems necessary to meet the needs of students.