SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Outline: ADVANCED APPLICATION PROGRAMMING
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Code No.:   EDP 229
_____

Program: PROGRAMMER
_____

Semester: THREE
_____

Date: SEPTEMBER, 1989
_____

Author: DENNIS OCHOSKI
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                New: _____   Revision: _____

APPROVED: _____   _____
              Chairperson   Date

ADVANCED APPLICATION PROGRAMMING   EDP229
_____   _____
            Course Name   **Course Code**

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: "Cobol Programming: A Structured Approach", Peter Abel
                Third Edition, 1989

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. 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:

1. Table definitions in COBOL

2. The OCCURS clause

MODULE 5: cont'd

3. The PERFORM verb and table handling

4. Table searching

5. Indexing, subscripting, and searching

MODULE 6:

Will examine file organizations.

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

MODULE 8: cont'd

4. Testing procedures

5. VAX interactive debugger

6. Common errors

STUDENT EVALUATION:

The student's final grade will be determined from the following components:

A)   Tests (3 @ 20%)   60%
        Assignments   15%
        Project (1 @ 20%)   20%
        Participation   5%
                            ─────
                            100%

B)   **Grading:**

        A+   90-100%
        A   80- 89%
        B   70- 79%
        C   60- 69%
        R   0- 59%

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 assignments are subject to a zero grade unless the student has **PRIOR** permission from the instructor to hand the assignment in at a later date.