

Sault College  
of Applied Arts and Technology  
sault ste. marie

Course Outline

Documentation &  
Program Organization

EDP 101-4

revised ~~Jan. 1979~~

*Revised  
Jan. 1981*

DOCUMENTATION AND PROGRAM ORGANIZATION

EDP 101-4

TIME: 4 periods per week for 1 semester

TEXT: INTRODUCTION TO FLOWCHARTING AND COMPUTER PROGRAMMING  
LOGIC - Shelly and Cashman

FUNDAMENTALS OF STRUCTURED COBOL PROGRAMMING - Feingold

AIM: This course will be taken in Semester 2 by students in the Data Processing option of the Business Administration program. This course must be taken in conjunction with EDP 102-8 COBOL PROGRAMMING I.

1. This course will provide instruction in the basic logic and flowcharting of business applications. Students will be expected to apply the concepts and techniques, covered in this course, to the assignments in programming in EDP 102-8.
2. Students will also be instructed in the preparation of adequate documentation. The knowledge which they gain in this area is to be displayed by the preparation of a binder containing complete documentation of all assignments from EDP 102-8.

STUDENT EVALUATION:

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

Tests (2 x 15)	30%
Term work (Binder)	40%
Participation	30%
	<u>100%</u>

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<u>REFERENCE</u>	<u>TOPIC #</u>	<u>DESCRIPTION</u>
Shelly & Cashman Ch. 1	1	<u>Problem Solving</u>
Shelly & Cashman Ch. 2	2	<u>Basic Input/Output</u> - flowchart logic - reading, processing and outputting data
Shelly & Cashman Ch. 3	3	<u>Basic Arithmetic</u> - initializing counters - accumulating totals - end of file handling
Shelly & Cashman Ch. 4	4	<u>Comparing</u> - numeric data - alphabetic data - flowchart logic
Shelly & Cashman Ch. 5	5	<u>Control Codes</u> - use of codes - error handling
Shelly & Cashman Ch. 6	6	<u>Report Headings</u> - value of headings - page overflow - carriage tape - line counts
Shelly & Cashman Ch. 6	7	<u>Subroutines and Switches</u> - open and closed subroutines - multiple records - program switches

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<u>REFERENCE</u>	<u>TOPIC #</u>	<u>DESCRIPTION</u>
Shelly & Cashman Ch. 7 and 8	8	<u>Totals</u> <ul style="list-style-type: none"><li>- control breaks</li><li>- minor totals</li><li>- major, intermediate and minor totals</li><li>- first record handling</li><li>- rolling totals</li><li>- output following a control brea</li></ul>
Shelly & Cashman Ch. 9	9	<u>Sequential File Updating Logic</u> <ul style="list-style-type: none"><li>- disk files</li><li>- file organization</li><li>- file processing</li><li>- end of file handling</li></ul>
Shelly & Cashman Ch. 10 Feingold Ch. 9	10	<u>Sequential Table Search</u> <ul style="list-style-type: none"><li>- use of tables</li><li>- subscripts</li><li>- search logic</li><li>- multi-level tables</li></ul>
Notes	11	<u>Internal Controls</u> <ul style="list-style-type: none"><li>- machine checks</li><li>- program checks</li></ul>
Notes	12	<u>External Controls</u> <ul style="list-style-type: none"><li>- operator instructions</li><li>- data file protection</li><li>- batch balancing</li><li>- recovery procedures</li></ul>
Feingold Ch. 7 & 15	13	<u>Internal Documentation</u> <ul style="list-style-type: none"><li>- program narrative</li><li>- comment statements</li><li>- coding standards</li></ul>

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<u>REFERENCE</u>	<u>TOPIC #</u>	<u>DESCRIPTION</u>
Feingold Ch. 7	14	<u>Structured Programming</u> - history - objectives - basic logic structures
Notes	15	<u>External Documentation</u> - system flowchart - program narrative - record layouts - sample source documents - printer spacing charts - program flowchart - test data - program listing - test output
Notes	16	<u>Operations Control</u> - operator manual - data and job submission tickets - file control logs - console logs - job accounting systems