SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: **Introduction to Operating Systems**

Course No.: **CSO 100**
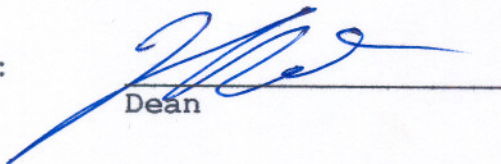
Program: **COMPUTER ENGINEERING / COMPUTER PROGRAMMING**

Semester: **FIRST(1)**

Date: **September 1995**

Author: **Willem DeBruyne / Frank Turco**

Previous
Outline Dated: **NEW COURSE**

APPROVED: _____   _Aug 28/95_
                      Dean   Date

INTRODUCTION TO OPERATING SYSTEMS   **CSO 100**

C O U R S E   O U T L I N E

PREREQUISITES: NONE

LENGTH OF COURSE: 4 HOURS PER WEEK

TOTAL CREDITS: 4

I.   PHILOSOPHY/GOALS

This course is designed to give the student a solid foundation for working with the many features and functions of a VAX computer system using the VMS operating system. It does not cover specific applications programs that run on VAX computers but rather concentrates on the capabilities and the hands-on approach, providing you with labs and exercises to try out at your terminal.

The other half of the course will focus on the PC computer system using the DOS operating system. The student will learn how to issue commands from the DOS shell and from the command prompt.

The students will be able to compare and contrast the VMS and DOS operating system.

II.   PERFORMANCE OBJECTIVES (OUTCOMES)

Upon successful completion of this course the student will:

1.   Demonstrate knowledge of the VAX fundamentals, environment and value of operating systems.

2.   Use VMS commands to manage files and directories on the VAX and use Mail, Help and other useful utilities.

3.   Use the Internet to send mail and research topics using INTERNET Tools.

4.   Demonstrate knowledge of DOS fundamentals and commands.

5.   Use the DOS Shell and DOS Commands

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III. TOPICS TO BE COVERED: **APPROXIMATE TIME**

1.	Vax/VMS fundamentals.	2 Weeks
2.	Vax Utilities and Commands.	5 Weeks
3.	Introduction to Internet Access	2 Weeks
4.	DOS fundamentals	2 Weeks
5.	DOS Shell and Commands	5 Weeks

IV.   LEARNING ACTIVITIES/REQUIRED RESOURCES

TOPIC 1   VAX FUNDAMENTALS

During this block the student will study the VAX computer and the VMS Operating System.

LEARNING ACTIVITIES:

At the end of this block the student will be able to:

1.   Describe the organization of the Vax computer and the function of its parts.

2.   Describe the typical software components of the system and their function.

3.   Describe the Sault College computer network and the various ways of interacting with our environment.

4.   Learn to use the network facilities and DCL (Digital Command Language) to:

   a)   Log on and off the system.
   b)   Manage files.
   c)   Discuss the characteristics of editors, and use the features of the VMS EVE editor.

REQUIRED RESOURCES:

TEXT: "VMS User's Guide" - Chapter 1, 2, 3, 4
Class Notes, Instructor's Notes

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TOPIC 2   VAX UTILITIES AND COMMANDS

During this block the student will study and use various useful VAX utilities.

LEARNING ACTIVITIES:

At the end of this block the student will be able to:

1.   Understand VAX file types and specifications.

2.   Create and maintain directory structures and their associated files efficiently.

3.   Develop and maintain a useful LOGIN.COM file.

4.   Use the Help facility to clarify the operation of DCL commands.

5.   Use the Mail and Phone utilities to communicate on-line and manage messages between users.

REQUIRED RESOURCES:

TEXT: "VMS User's Guide" Chapter 2, 5
Class Notes, Instructor's Notes

TOPIC 3   INTRODUCTION TO INTERNET ACCESS

During this block the student will study and use the INTERNET to send mail to other INTERNET users. The student will also be exposed to using the INTERNET's research capabilities such as archie, veronica through the Sault College GOPHER feature.

LEARNING ACTIVITIES:

At the end of this block the student will be able to:

1.   Know what INTERNET is and how it works.

2.   Send mail from the INTERNET to another network.

3.   Use the text based browser, LYNX.

4.   Do a variety of searches using a variety of Gopher sites.

REQUIRED RESOURCES:
Class Notes, Instructor's Notes

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TOPIC 4   MS DOS FUNDAMENTALS

In this section the student will learn to utilize the IBM PC or compatible by becoming proficient in the use of the MS-DOS disk operating system. The student will develop a detailed view of the instruction set to use the system efficiently.

LEARNING ACTIVITIES:

The following topics shall be covered.

1.   Know DOS basics, what it is, and what it does.

2.   Use DOS Features and understand File Handling / Disk Management.

3.   Use Tree-structured Directory Systems.

4.   Manage various devices.

5.   Appreciate what the File Allocation Table is and Configure systems.

REQUIRED RESOURCES:

Instructor's Handouts, Guidance, and Material covered in the class and Labs.

Peter Norton's Complete Guide to DOS 6.22
Chapters 1, 2, 3, 4

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TOPIC 5   DOS Shell and DOS Commands

In this section the student will explore the DOS SHELL and learn
how to work with a Shell environment.

LEARNING ACTIVITIES:

The following topics shall be covered.

1.   Starting and exploring the Dos Shell.

2.   Work with dialog boxes, command buttons, and scrolling.

3.   Manage directories, files and run programs from within the
      Shell.

4.   Use the variety of DOS Commands from the DOS prompt.

5.   Use the DOS editor.

REQUIRED RESOURCES:

Instructor's Handouts, Guidance, and Material covered in the class
and Labs.

Peter Norton's Complete Guide to DOS 6.22
Chapters 5 through 19 as needed

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V.   METHOD OF EVALUATION

Theory Tests, Practical Tests and Quizzes   60 %
Assignments   36 %
Attendance & Participation   04 %

The tentative breakdown is as follows:

1	FORMAL VAX TEST	at 20 %.
1	FORMAL DOS TEST	at 20 %.
4	QUIZZES	at 5 % each.
3	ASSIGNMENTS	at 12% each.
	Participation	at 4%.

*   The instructor reserves the right to adjust the number of
tests, practical tests and quizzes based on unforseen
circumstances. The students will be given sufficient notice
to any changes and the reasons thereof.

*   Attendance:
Absenteeism will affect a student's ability to succeed in this
course. Attendance is encouraged because many things are
discussed and learned that may not be specifically evaluated
on tests. Absences due to medical or other unavoidable
circumstances should be discussed with the instructor, so that
comparable activities can be scheduled. 4% of the final grade
will be based on attendance and participation.

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V.   ASSESSMENT (CONTINUED)

GRADING SCHEME

1.   TESTS
    Written tests will be conducted as deemed necessary;
    generally at the end of each block of work. They will be
    announced about one week in advance. Practical on-line tests
    will be conducted in which time to complete the assigned
    problems will be a factor in the evaluation. Quizzes may be
    conducted without advance warning.

2.   ASSIGNMENTS
    Late assignments are subject to a ZERO grade unless PRIOR
    consent is granted by the instructor.

3.   GRADING SCHEME

A+	90	-	100%	Outstanding achievement
A	80	-	89%	Excellent achievement
B	70	-	79%	Average Achievement
C	55	-	69%	Satisfactory Achievement
R	Repeat			
X	A temporary grade that is limited to instances where special circumstances have prevented the student from completing objectives by the end of the semester. An X grade must be authorized by the Chairperson. It reverts to an R if not upgraded in an agreed-upon time, less than 120 days.			

4.   UPGRADING OF INCOMPLETE
    When a student's course work is incomplete or final grade is
    below 55%, there is the possibility of upgrading to a pass
    when the student's performance warrants it. Attendance and
    assignment completion will have a bearing on whether upgrading
    will be allowed. A failing grade on all tests will remove the
    option of any upgrading and an R grade will result.   The
    highest grade on re-written tests or assignments will be 56%.
    Where a student's overall performance has been consistently
    unsatisfactory, an R grade may be assigned without the option
    of make-up work.

    The method of upgrading is at the discretion of the teacher
    and may consist of one or more of the following options:
    assigned make-up work, re-doing assignments, re-writing of
    tests, or writing a comprehensive supplemental examination.

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VI.   PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the instructor.

VII. REQUIRED STUDENT RESOURCES:

TEXT BOOKS:

1.   "The VMS USER'S GUIDE"
          by Peters and Holmay (Digital Press)

2.   DOS 6.22 SIXTH EDITION
          Peter Norton's Complete Guide

INSTRUCTOR's NOTES AND CLASS NOTES

VIII.   ADDITIONAL RESOURCE MATERIALS AVAILABLE IN THE COLLEGE LIBRARY.

None required for this particular course.

IX. SPECIAL NOTES

1.   Students with special needs are encouraged to discuss required accommodations confidentially with the instructor.

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

3.   The topics will not necessarily be covered in the order shown in the course outline.