SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE MARIE, ON

COURSE OUTLINE

Course Title: System Planning II

Code No.: CSD311   **Semester**: Six

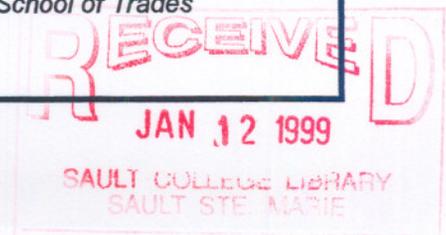**Program**: Computer Programmer/Analyst

Author: Willem de Bruyne

Date: January 4, 1999 **Previous Outline Date**: January 1998

Approved: _K. Ochusario_   _Jan. 8/99_
   Dean   **Date**

Total Credits: Five   **Prerequisite(s): CSD310**
Length of Course: 16 wks   **Total Credit Hours: 64**

I.   COURSE DESCRIPTION:

PowerBuilder is an enoromous product. It is probably the most feature-rich software that you will come across. Every dialog box is loaded the options, and always serval ways to to accomplish a task. This course will give a comprehensive look at the popular features of PowerBuilder. It is impossible to cover every feature in the language in one or two courses. The PowerBuilder documentation set is over 7000 pages. This course will focus on those features that you will need to know to become a good PowerBuilder developer.

II.   LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course the student will demonstrate the ability to:

1)   Create a Simple Application and have it Up and Running

Potential Elements of the Performance:
- Create the library
- Create the application
- Enter the application painter
- Create a new window
- Enter the window painter
- Create objects
- Change attributes of objects
- Create scripts
- Compile scripts
- Change tab orders

2)   Understand Events, Properties and Functions

Potential Elements of the Performance:
- Events in windows
- Events in the application
- Various controls
- Manipulate controls in scripts
- Properties
- Functions

3) Understand the PowerScript Language

Potential Elements of the Performance:
- Elements of the PowerScript Language
- Assignment statements
- Programming style
- White space
- Capitalization
- Multiple lines per statement
- Comments
- PowerScript painter
- Dropdown list boxes
- Menu and Painter bar
- Naming Variables
- Declaring variables
- Data types
- Program control statements
- Arrays
- Pronouns
- Functions
- More PowerScript Painter features
- PowerScript compiler
- PowerScript programming standards
- Naming conventions

4) Work with Data

Potential Elements of the Performance:
- Database terminology
- PowerBuilder database connections
- Defining and connecting to databases in the painter
- What happens when you connect to a database

5) Use the Database Painter

Potential Elements of the Performance:
The data manipulation painter
- The table painter
- Displaying formats, edit styles, and validation rules
- Where the extended definitions live
- Repository
- Keys and indexes

- Views

6) Use SQL in PowerScript

Potential Elements of the Performance:
- The transaction object
- Embedded SQL commands
- Dealing with nulls
- Transactions: commit and rollback
- Dynamic SQL

7) Use DataWindows

Potential Elements of the Performance:
- Step by Step exercise
- Polish the window

8) Use Data Entry Programming

Potential Elements of the Performance:
- Work through a sample Order Form

9) Use User-defined Objects

Potential Elements of the Performance:
- How to create a user-defined object
- Standard Visual User Objects
- Making objects smarter

III. TOPICS:

1) **Create a Simple Application and have it Up and Running**
2) **Understand Events, Properties and Functions**
3) **Understand the PowerScript Language**
4) **Work with Data**
5) **Use the Database Painter**
6) **Use SQL in PowerScript**
7) **Use DataWindows**
8) **Use Data Entry Programming**
9) **Use User-defined Objects**

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Using PowerBuilder 5, QUE, Charles A. Wood

Instructor Handouts

V. EVALUATION PROCESS/GRADING SYSTEM

The mark for this course will be arrived at as follows:

Test 1	40%
Test 2	40%
Assign 1	20%
	100%

Grading Scheme:

A+ 90–100% (Outstanding)
A 80–89% (Excellent)
B 70–79% (Average)
C 60–69% (Satisfactory)
R (Repeat)
X (Incomplete)

VI. SPECIAL NOTES:

- Students will receive a grade of zero for late assignments unless prior permission is granted from the instructor.

- Students are expected to attend classes on a regular bases and treat their peers and instructors in a business like manner.

- Students are expected to inform the instructor via phone or e-mail if they are unable to attend class, 2% penalty for each infraction.

- Students missing a test will receive a grade of zero unless prior permission is granted from the instructor.

VII. PRIOR LEARNING ASSESSMENT

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