SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

Sault College

COURSE OUTLINE

COURSE TITLE:	ADVANCED COMPUTER APPLICATIONS
CODE NO. :	COM1240 **SEMESTER:** TWO & THREE
PROGRAM:	OFFICE ADMINISTRATION & COMPUTERIZED BUSINESS SYSTEMS
AUTHOR:	LYNN DEE EASON
DATE:	SEPT. 2002 **PREVIOUS OUTLINE DATED:** JUNE 2001
APPROVED:	

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                        DEAN   **DATE**

TOTAL CREDITS:	4
PREREQUISITE(S):	COM128, COM300
HOURS/WEEK:	4 for 15 weeks (OA)/ 8 for 6 weeks (CBS)

I.   COURSE DESCRIPTION: Students will continue to build their spreadsheet skills through using macros; importing and exporting data; working with templates and lists; summarizing and consolidating worksheets; using analysis tools; and collaborating with workgroups. Advanced database skills including the set-up and use of multi-relational databases; use of macros and other database tools; and design of forms; queries; and reports will be developed. Integrating data with other applications will also be incorporated. In this course the students will be using Excel and Access.

II.   LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Use spreadsheet formatting features beyond basic options; facilitate the sharing of data and workbooks by creating templates; and use advanced functions or built-in formulas.

    Potential Elements of the Performance:
    - Apply accounting, fraction, and scientific formats
    - Create and apply custom formats
    - Format large labels
    - Create, apply, and edit styles
    - Use the Format Painter
    - Format a worksheet by adding borders and shading
    - Apply formatting to a worksheet using one of Excel's predesigned AutoFormats
    - Create and use conditional formatting
    - Adjust the layout of a worksheet; use the Paste Special Command; Hide and unhide rows, columns, and sheets; and rename sheets
    - Format large worksheets
    - Use an existing Excel template and create and edit a template
    - Automatically collect data with an existing template
    - Create and use a workspace file
    - Open multiple workbooks and copy several worksheets into a new workbook
    - Consolidate data into a list
    - Link and share workbooks
    - Use the PMT, PV, ROUND, RAND, SUMIF, COUNTIF functions
    - Name a range and use a named range in a formula

- Use the VLOOKUP and IF functions
- Use array formulas

2. Analyze and summarize spreadsheet data through the creation and use of lists, PivotTables, PivotChart reports, Goal Seek, Solver, and Scenarios.

   Potential Elements of the Performance:
   - Enter data using the Data Form
   - Use data validation
   - Sort a list, perform a multi-level sort on a list, and create a custom list
   - Find and display records, as well as edit and delete records using the Data Form
   - Outline a worksheet
   - Subtotal a list
   - Filter a list using AutoFilter and create a custom AutoFilter
   - Filter a list using advanced filtering
   - Create a PivotTable report using the PivotTable Wizard
   - Format a PivotTable reporting using AutoFormat
   - Sort and filter and analyze data using a PivotTable report
   - Create a PivotChart report
   - Create an interactive PivotTable for the Web
   - Analyze data using Goal Seek and Solver
   - Create Scenarios

3. Manage and audit worksheets by creating and running macros; creating custom toolbars; tracing; workgroup computing; and importing and exporting data by linking or embedding objects.

   Potential Elements of the Performance:
   - Record, run, and edit a macro
   - Assign a macro to a command button
   - Hide and display toolbars, as well as create a custom toolbar using the Auditing toolbar
   - Trace precedents, dependents, and errors
   - Change workbooks properties
   - Apply and remove passwords, workbook protection, and worksheet protection
   - Track changes in a shared workbook and accept and reject tracked changes
   - Create, edit, and remove a comment
   - Merge workbooks
   - View and print multiple worksheets

- Create and print a report using the Report Manager
- Import and export data to text files
- Place a noninteractive and an interactive worksheet/chart on the Web
- Take an Excel workbook on a "round trip"
- Import data from a Web page into Excel
- Retrieve data from a Web page using Web Query
- Query a database using Microsoft Query
- Link and embed an object in an Excel worksheet

4. Build and modify advanced database reports, refine queries to extract the precise information needed, and create professional-looking reports using advanced report features.

   Potential Elements of the Performance:
   - Build main and subreport queries
   - Group records for reports and subreports
   - Establish one-to-many relationships between tables
   - Create a main report
   - Add text expression to a report
   - Create a concatenated expression
   - Add an IIF expression to a report
   - Embed the subreport in a main report
   - Add calculations to a report
   - Build a query to add a chart to a report

5. Create relational databases; define relationships; maintain security of the database; manage the appearance of the database; and integrate data with office applications.

   Potential Elements of the Performance:
   - Create a blank database
   - Add a password to protect the database
   - Import an Excel table
   - Import a text file
   - Export a table to Excel and Word
   - Export the table to HTML format
   - Create and modify a data access page
   - Create a mail merge letter and merge with data from Access

6. Build and modify advanced database forms, refine queries to extract the precise information needed, and create professional-looking

Advanced Computer Applications   COM1240

forms using advanced form features.

Potential Elements of the Performance:
- Create and format a main form
- Create a subform
- Add the subform to a main form
- Modify the controls in the subform
- Apply conditional formatting
- Add and modify a command button
- Create a form and subform using the wizard
- Create a grouped data access page
- Add a combo box
- Add and format an option group
- Change a control type
- Use list boxes in a form
- Create a multipage form
- Use a hyperlink in a form
- Add a chart and image
- Create a switchboard
- Use database tools
- Replicate a database
- Run a macro from a command button
- View and edit a macro
- Create a macro
- Name and group macros
- Use the AutoKeys macro, Sendkeys and RunCommand
- Use conditions in a macro
- Write an AutoExec macro

7.   Create a new database to summarize the whole course.

Potential Elements of the Performance:
- Create several tables
- Utilize data types, formats, input masks, captions, and defaults
- Assign a primary key
- Input data in the tables
- Sort and print the records
- Create a main for with a subform
- Create a multiple page form
- Write a macro
- Add a command button
- Assign a macro to an event
- Create a switchboard

Advanced Computer Applications   COM1240

III.   TOPICS:

1.   Formatting Excel Worksheets Using Advanced Formatting Techniques
2.   Working with Templates and Workbooks
3.   Using Advanced Functions
4.   Working with Lists
5.   Using Excel's Analysis Tools
6.   Managing and Auditing Worksheets
7.   Collaborating with Workgroups
8.   Importing and Exporting Data
9.   Building and Modifying Advanced Reports (in Access)
10. Building and Modifying Forms
11. Refining Queries
12. Using Advanced Report Features
13. Defining Relationships
14. Using Access Tools
15. Integrating Access Data with Office Applications

IV.   REQUIRED RESOURCES/TEXTS/MATERIALS:

Microsoft Excel Expert Certification, by Meredith Flynn, published by EMCParadigm, 2002.

Access 2000, A Professional Approach, by Kathleen Stewart, published by Glencoe/McGraw Hill, 2002.

Three manila file folders (letter size)
Five 3 ½ " high density disks
Three individual diskette pockets
Disk labels
Mouse pad
Carrying/storage case for disks

V. EVALUATION PROCESS/GRADING SYSTEM:

Spreadsheet – One test - Students will be evaluated on their spreadsheet skills. One test will be administered based on projects that have been completed, marked, and returned. The test is worth.......................**40%**

Projects: Completion of projects for Excel 2000 ....**10%**

Database – One test - Students will be evaluated on their database skills. One test will be administered based on projects that have been completed, marked, and returned. The test is worth **40%**

Projects: Completion of projects for Access 2000 ....**10%**

The following semester grades will be assigned to students in postsecondary courses:

Grade	Definition	Grade Point Equivalent
A+	90 - 100%	4.00
A	80 - 89%	3.75
B	70 - 79%	3.00
C	60 - 69%	2.00
R (Repeat)	59% or below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field placement or non-graded subject areas.	
U	Unsatisfactory achievement in field placement or non-graded subject areas.	
X	A temporary grade. This is used in limited situations with extenuating circumstances giving a student additional time to complete the requirements for a course (see *Policies & Procedures Manual – Deferred Grades and Make-up*).	
NR	Grade not reported to Registrar's office. This is used to facilitate transcript preparation when, for extenuating circumstances, it has not been possible for the faculty member to report grades.	

VI.   SPECIAL NOTES:

Special Needs:
If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 491 so that support services can be arranged for you.

Retention of course outlines:
It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Plagiarism:
Students should refer to the definition of "academic dishonesty" in *Student Rights and Responsibilities*. Students who engage in "academic dishonesty" will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course outline amendments:
The Professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

Students are expected to be present to write all tests during regularly scheduled classes.

Test papers will be returned to the student after grading in order to permit verification of the results ant to review the tests. However, the student will be required to return all test papers to the instructor who will keep them on file for one year.

In the event of a failed course grade, a supplementary test will be administered at the end of the semester to replace EITHER the lowest failed OR one missed test.

Each student will be required to keep a file in a designated classroom. This will facilitate the return of assignments, grades, and any messages the Office Administration faculty needs to relay to the students.

A disk labeled with the student's name, professor's name, and the course name MUST be available with the assignment. At the professor's discretion, disks will be checked. Students are advised to maintain at LEAST one backup of all files. A lost or damaged diskette will not be an acceptable reason for a late or incomplete assignment.

It is expected that 100 percent of classroom work be completed and submitted on time. **A late assignment with an attached Extension form** will be accepted if submitted within 72 hours of the due date and time. Twenty-five percent will be deducted from late/incomplete assignments automatically. Failure to follow this procedure will result in a zero grade for the assignment.

All work must be labeled with the student's name and the project information on each page. All work must be submitted in a labeled folder complete with a plastic disk pocket.

During testing, the program's on-line help may be available. Tests will not be "open book." Talking with other students during the test will result in an automatic deduction of 5 marks per occasion. Students must ensure that they have the appropriate tools to do the test (i.e. diskettes, pencil, pen, etc.).

Producing accurate work is fundamental to this course. Marks will be deducted for inaccuracies.

Regular attendance is expected so the professor can observe work and provide guidance as necessary.

VII.   PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

Advanced Computer Applications   COM1240

VIII.   DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.