**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**

Sault College

# COURSE OUTLINE

**COURSE TITLE:** **Applications Support**

**CODE NO. :** CSA101 **SEMESTER:** Two

**PROGRAM:** **Computer Systems Support**

**AUTHOR:** MARCEL VANLANDEGHEM

**DATE:** **January 2004** **PREVIOUS OUTLINE DATED:** **January 2003**

**APPROVED:**

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DEAN DATE

**TOTAL CREDITS:** **4**

**PREREQUISITE(S):**

**HOURS/WEEK:** **4**

**Micro Computer Applications** **CSA101**
**COURSE NAME** **COURSE CODE**

## I . COURSE DESCRIPTION :

In this course students will learn the basic to intermediate features of Microsoft Excel. Students will learn to develop sophisticated spreadsheet applications involving formulas and statistical charting.

A major component of this course will be to focus on database technologies. Students will learn database concepts in order to develop complex database systems . Students will be introduced to system design, table structures, forms, queries and reports in order to develop database applications.

In addition students will be introduced to the basic SQL structure to generate queries from standard database applications.

## II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

**1 .** Demonstrate an understanding of spreadsheet concepts, terminology and screen layouts**.**

***Potential elements of the performance:***

- Learn the basic structure of a spreadsheet – rows, columns, cells
- Learn why spreadsheet applications are used.
- Learn to use screen menus, options and toolbars
- Learn formatting concepts and formulas

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2 Demonstrate an understanding of how to use formulas and perform calculations.

***Potential elements of performance:***

- Starting Excel
- Working with text in cells
- Working with numbers and formulas
- Using Formula Functions
- Copy cell contents
- Understand and use AUTOFORMAT
- Saving and Printing a spreadsheet
- Inserting Sheets, columns and rows
- Consolidating spreadsheets
- Absolute and relative addressing
- Database concepts and filtering

**Micro Computer Applications** **CSA101**
**COURSE NAME** **COURSE CODE**

**3 .** Demonstrate and understanding of how to create and edit charts

***Potential elements of performance:***

- Learn terminology and chart concepts
- Learn how to represent data with different chart types
- Create a Pie, Column and Bar chart
- Edit and make changes to charts
- Create charts on separate spreadsheet

***The Excel section will constitute approximately 35% of the course grade***

4 Demonstrate an understanding of database concepts, applications and terminology.

***Potential elements of performance***

- Learn what a database is comprised of and how used
- Understand keys, records, fields
- Understand Indexing concepts
- Define and use Single and Relational database
- Review screen layouts and toolbars
- Differentiate between a table and a database
- Define Forms, Queries and Reports

5 Demonstrate an understanding of how to create and maintain tables, generate reports, forms and queries.

***Potential elements of performance***

- Learn database structure and setup
- Create and save tables
- Add, Delete, Change records in a table
- Create charts from a table
- Linking Tables and Referential Integrity
- Creating Forms for data entry
- Create and run queries
- Create and run Parameter Queries
- Compound Queries and Sorting Data
- Setting Validation Rules
- Understand and use various field types
- Create and use Update Queries
- Create and use Index files
- Generate custom reports from tables and queries
- Adding images to records and using OLE
- Create and Use Sub forms
- Create and Use Macros
- Setting startup options
- Student Project – design a complete database application

6 Demonstrate an understanding of basic SQL commands

***Potential elements of performance***

- Define SQL
- Using SQL with Access
- Create SQL standard Queries
- Using Multiple Tables
- Update. Delete and Change records
- Perform calculations using SQL
- Using SQL to Sort records
- Using “IF” and “OR” SQL queries.
- Student project

This section represents 65% of the overall course mark.

**Micro Computer Applications** **CSA101**
**COURSE NAME** **COURSE CODE**

## III. TOPICS TO BE COVERED

**TOPICS**

**Basic Spreadsheet Concepts**
**Using calculations and formulas**
**Create and Edit Charts**
**Introduction to Database Concepts**
**Working with tables, forms, queries and reports**
**Basic SQL command structure**

## IV. REQUIRED STUDENT RESOURCES/TEXTS/MATERIALS

**Access 2000 ESSENTIALS ISBN# 0-13-019103-5**

**Instructor Handouts**

## V EVALUATION PROCESS/GRADING SYSTEM :

Excel **Note ! Late Assignments will not be Accepted**

| | | |
|---|---|---|
| 3 Assignments | @ 5% | 15% |
| 1 Test | @ 20% | 20% |

Access **Note ! Late Assignments will not be Accepted**

| | | |
|---|---|---|
| 4 assignments | @ 5% | 20% |
| 1 Test | @ 20% | 20% |
| 1 Project | @ 15% | 15% |

SQL **Note ! Late Assignments will not be Accepted**

| | | |
|---|---|---|
| 1 Assignments | @ 5% | 5% |
| 1 Test | @ 5% | 5% |

TOTAL 100%

- Some minor modifications to the above percentages may be necessary. **The professor** reserves the right to adjust the mark up or down 5% based on attendance, participation, leadership, creativity and whether there is an improving trend.

- Students must complete and pass both the test and assignment portion of the course in order to pass the entire courses.

- All Assignments must be completed satisfactorily to complete the course. Late hand in penalties will be 5% per day. Assignments will not be accepted past one week late unless there are extenuating and legitimate circumstances.

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

- A student who is absent for 3 or more times without any valid reason or effort to resolve the problem will result in action taken.

  NOTE: If action is to be taken, it will range from marks being deducted to a maximum of removal from the course.

## V. *EVALUATION PROCESS / GRADING SYSTEM (Continued):*

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% | |
| B | 70 - 79% | 3.00 |
| C | 60 - 69% | 2.00 |
| D | 50 – 59% | 1.00 |
| F (Fail) | 49% and below | 0.00 |

| | |
|---|---|
| CR (Credit) | Credit for diploma requirements has been awarded. |
| S | Satisfactory achievement in field /clinical placement or non-graded subject area. |
| U | Unsatisfactory achievement in field/clinical placement or non-graded subject area. |
| X | A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course. |
| NR | Grade not reported to Registrar's office. |
| W | Student has withdrawn from the course without academic penalty. |

## 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 professor and/or the Special Needs office. Visit Room E1101 or call Extension 493 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.

## 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.