

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



**COURSE OUTLINE**

**Course Title: INTRODUCTION TO ACCESS**

**Code No.: GIS 403                      Semester: 1**

**Program: GIS SPECIALIST**

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**Date: NOVEMBER 1998              Previous Outline Date: N/A**

**Approved: K. DeRosario**  
**Dean**

**Nov 12/98**  
**Date**

**Total Credits: 3**

**Prerequisite(s): None**

**Length of Course:**

**Total Credit Hours: 45**

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For additional information, please contact Kitty DeRosario, Dean, School of Trades  
& Technology, (705) 759-2554, Ext. 642.



COURSE NAME

COURSE CODE

**I. COURSE DESCRIPTION:**

In this course students will learn to use the basic to intermediate features of Microsoft Access 97.

Students will learn functions and concepts, use menus and toolbars, create, enter and edit database records. The course will also provide a strong understanding of the logistics of database design. Through practical applications students will learn to design tables, queries reports and custom reports in addition to creating relationships between tables. Practical "hands-on" applications will be utilized to incorporate basic database concepts.

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

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

## 1) Describe and explain an Overview of Database Structure (5 hours)

Potential Elements of the Performance:

- Explain database and tables
- Discuss database concepts and design
- Explain field types and record layouts
- Explain Single and Relational databases
- Describe Key Fields and Indexing
- Discuss Access and how it will be used to interface with GIS
- Review Access screen layout and toolbars
- Discuss Linking and Joining tables
- Explain Referential Integrity.

## 2) Define and create a database (5 hours)

Potential Elements of the Performance:

- Follow procedure to create a new database
- Create and save a table in the database
- Explain the different field types within a table record
- Add records to the table
- Perform procedures to change the design of the table
- Open a database and add additional records
- Preview and print the contents of a table
- Create additional tables
- Create a graph
- Discuss how to plan and design a database

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**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE  
(Continued)**

## 3) Define and create a database (5 hours)

Potential Elements of the Performance::

- Explain and define Queries?
- Create new queries
- Display selected fields in a query
- Run a Query
- Print the results of a query
- Include all fields in a query
- Clear the QBE grid
- Use Text data in Criteria
- Use Numbers and Wild cards in Criteria selection
- Use Comparison operators
- Create Compound criteria selections
- Sort data in queries and use multiple keys
- Group and save queries
- Create and use Parameter queries
- Create and use Calculation queries

## 4) Maintain databaes (5 hours)

Potential Elements of the Performance:

- Add, change and delete records in the database
- Change the database structure
- Create validation rules
- Update tables with validation rules
- Perform table linking and JOIN
- Specify Referential Integrity
- Perform mass updates
- Create and use indexes

## 5) Customize data entry forms and reports

Potential elements of performance:

- Create a report
- Group reports
- Create and use Custom forms
- Set up custom reports and forms
- Create reports from queries
- Modify the report and form design

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**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE  
(Continued)**

- 6). Perform advanced database management and link objects in a GIS Environment (5 hrs.)

Potential elements of performance:

- Create Date, Memo and Graphic fields
- Perform procedures to insert objects into records
- Use Date and Memo fields in a query
- Change the structure of a table
- Use advanced FORM and Report techniques

**III. TOPICS:**

1. Overview of a database structure
  - Basic database terminology
  - Single and relational databases
  - Fields and indexing
  - Access interface with GIS
  - Basic access functions
2. Define and create a database
  - Creation and modification of databases and tables
  - Viewing data
  - Creating graphs
  - Planning and designing a database
3. Creating queries for the database
  - Using the query function
  - Using the criteria function
  - Additional applications
4. Maintaining the database
  - Modification of databases
  - Table linking
  - Referential integrity
  - Mass updates
  - Indexes
5. Create customized data entry Forms and Reports
  - Creating reports and forms
  - Customizing forms
  - Reports from queries

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- 6. Advanced database management and object linking in a GIS Environment
  - Date, memo and graphic fields
  - Inserting objects
  - Integration of query
  - Advanced form and report techniques

**IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**

Students will be given detailed handouts for each topic covered in addition to completing a number of practical applications.

**V. EVALUATION PROCESSING SYSTEM**

Tentative Breakdown:

The marks for this course will be arrived as follows:

Practical Assignments ( 5 )	30%
Projects 2	40%
Access Quiz	30%
Total	100%

**GRADING SCHEME**

A+	85% and over consistently
A	75 - 84%
B	68 - 74%
C	60 - 67%
R	Less than 60%

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**VI SPECIAL NOTES**

1. All students should be aware of the Special Needs Office in the College. If you have any special needs such as being visually impaired, hearing disabled, physically disabled, learning disabilities you are encouraged to discuss required accommodations confidentially with the Professor and/or contact our Special Needs office so that support services can be arranged for you.
2. Your professor reserves the right to modify the course as he/she deems necessary to meet the needs of students.
3. It is the responsibility of the student to retain all course outlines for possible future use in gaining advanced standing at other post-secondary institutions.
4. Plagiarism  
Students should refer to the definition of "academic dishonesty" in the "Statement of 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, as may be decided by the professor.
5. Substitute course information is available at the Registrar's office.
6. Students must achieve a passing grade in both the assignment and the test portions of the course.
7. The topics will not necessarily be covered in the order shown in the course outline.

**VII. PRIOR LEARNING ASSESSMENT**

Students who wish to apply for advanced credit in the course should consult the instructor. Credit for prior learning will be given upon successful completion of the following: