

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



Sault College

COURSE OUTLINE

COURSE TITLE: Introduction to Access

CODE NO. : GIS403

SEMESTER: 1

PROGRAM: GIS

AUTHOR: Marcel VanLandeghem

DATE: Sept 2007 **PREVIOUS OUTLINE DATED:** Aug 2006

APPROVED:

DEAN

DATE

TOTAL CREDITS:

PREREQUISITE(S):

HOURS/WEEK: 3

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I. COURSE DESCRIPTION:

In this course students will learn to use the basic to intermediate features of Access . Students will learn functions and concepts, use menus and toolbars, create enter and edit database records. Students will also be introduced to basic SQL concepts using an access database.

This course will also provide an in depth understanding of the logistics of database design. Through practical applications students will learn to design tables, queries, reports in addition to understanding and creating relationships between numerous 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 Database Structuresw

Potential Elements of the Performance:

- Define database and tables
- Discuss database concepts and design
- Explain field types and record layouts
- Explain Single vs. Relational database
- Describe Key Fields and Indexing
- Discuss Access and how it will be used to interface with GIS
- Review Access Screen Layouts and Toolbars
- Discuss Linking and Joining Tables
- Explain Referential Integrity

2. Define & Create Database Structures/Tables

Potential Elements of the Performance:

- Define database and tables
- Discuss database concepts and design

- Explain field types and record layouts
- Explain Single vs. Relational database
- Describe Key Fields and Indexing
- Discuss Access and how it will be used to interface with GIS
- Review Access Screen Layouts and Toolbars
- Discuss Linking and Joining Tables
- Explain Referential Integrity

3. **Working with Multiple Tables**

Potential Elements of the Performance:

- Create additional tables
- Create and Use Forms to enter view data
- Create a customized Form
- Join tables
- Link tables using unique keys
- Indexing table items

4. **Create Queries and Basic Reports**

Potential Elements of the Performance:

- Explain and define Query
- Create new queries
- Display selected fields in a query
- Running Queries
- Using Text data in the Criteria section
- Using Numbers and Wildcards in the criteria section
- Using Comparison Operators
- Sorting data in a query
- Creating and use Parameter Queries
- Create and use Calculation queries

5. **Developing Reports**

Potential Elements of the Performance:

- Create a simple Report
- Create Group Reports Using the Report Wizard
- Create Customized Reports
- Formatting the Report

- Using Calculations in a report
- Running Queries into reports

6 Introduction to SQL

Potential Elements of the Performance

- Using the Select Statement
- Create Single Table Queries
- Retrieve data using simple/compound conditions.
- Create Parameter Queries
- Using Sort Functions
- Using Built-In Functions Count, Sum, Distinct
- Using Grouping Functions GROUP BY , HAVING
- Query Multiple Tables
- Join Tables
- Using Queries to Add, Delete, and Change records

III. TOPICS:

1. Describe and explain database structures
2. Define and Create Database Structures & Tables
3. Working with Multiple Tables
4. Creating Queries and basic reports
5. Developing Reports
6. Introduction to SQL

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- Microsoft Access 2003 Comprehensive Concepts & Techniques
ISBN 1-4188-4363-6
- Instructor Handouts
- Internet Resources

V. EVALUATION PROCESS/GRADING SYSTEM:

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

Test	(1)	@ 30%	30%
Practical Assignments	(8)	@ 5 %	40%
Projects	(2)	@ 15 %	30%
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.

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.

- Successful completion of this course is greatly improved with a disciplined approach and consistent attendance to both the lab and lecture / theory classes.
- 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. It is not acceptable to miss classes and / or labs without a reasonable explanation.
- There will also be a lab exercise each and every week that will be due during that lab period. In the event that it cannot be completed during lab time, you will be allowed to complete it as a homework exercise and demonstrate it the following lab with no penalty.

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

The following semester grades will be assigned to students:

Grade	<u>Definition</u>	<i>Grade Point Equivalent</i>
A+	90 – 100%	4.00
A	80 – 89%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D	50 – 59%	0.00
F (Fail)	49% and below	
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 2703 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.

Communication:

The College considers **WebCT/LMS** as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of the **Learning Management System** communication tool.

The professor reserves the right to use other tools and / or techniques that may be more applicable. These other tools and / or techniques for effective communication will be discussed, identified and presented throughout the delivery of the course content

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Code of Conduct*. 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.

Special Notes:

- In order to pass this course the student must obtain an overall **test/quiz** average of 50% or better.
- Assignments must be submitted by the due date according to the specifications of the instructor. Late assignments will normally be given a mark of zero. Late assignments will only be marked at the discretion of the instructor in cases where there were extenuating circumstances. Ask for permission from your instructor to hand assignments in late **before** the due date

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.

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.