



# THE UNIVERSITY OF WINNIPEG

## APPLIED COMPUTER SCIENCE

**Course Number: ACS-2814/3-001, 072L, 073L**

**Course Name: Applications of Database Systems**

### Instructor Information

Instructor:	Ron McFadyen	Office:	3D21
Class Meeting Time:	MW 1:00-2:15	Room No:	3D04
Lab 072 Meeting Time:	F 12:15-1:30	Room No:	3D03
Lab 073 Meeting Time:	F 12:15-1:30	Room No:	3C13
Office Hours:	W 10:00-11:00		
Web page:	<a href="http://courses.acs.uwinnipeg.ca/2814">courses.acs.uwinnipeg.ca/2814</a>		
E-mail:	<a href="mailto:ron.mcfadyen@acs.uwinnipeg.ca">ron.mcfadyen@acs.uwinnipeg.ca</a>		

### Important Dates

First class: Wed Jan 4, 2017  
First labs: Fri Jan 6, 2017  
(first lab is informal to ensure one can use MS Access)  
Midterm Tests: Mon Jan 30 & Mon Feb 13, 2017  
Final Exam: Mon Apr 10, 2017, 9:00 a.m.  
Reading Week: Feb 19-25, 2017 (no classes)  
Final Withdrawal Date w/o academic penalty: Wed Mar 1, 2017  
(A minimum of 20% of the work on which the final grade is based will be evaluated and available to the student before the voluntary withdrawal date)

### Additional Course Related Information

1. When it is necessary to cancel a class due to exceptional circumstances, instructors will make every effort to inform you via uwinnipeg email, as well as the departmental assistant and Chair/Dean so that class cancellation forms can be posted outside classrooms.
2. Your uwinnipeg email address will normally be used for course related correspondence.
3. Please note that withdrawing before the VW date does not result in a fee refund.
4. Class make-up days are scheduled at the end of term for courses that conflict with holidays.

## **Course Objectives/Learning Outcomes**

The course introduces relational databases including their use, design, development and programming using Microsoft Access and various database design tools. Examples are taken from a number of different subject areas. Specifically the course:

- Focuses on introductory issues of creating tables, indexes, relationships, forms, reports, queries, structured query language (SQL), importing/exporting data.
- Introduces database design.
- Introduces normalization and de-normalization of databases.
- Emphasizes hands-on experience through classroom lectures, weekly labs, and assignments.

## **Evaluation Criteria**

Labs (10 %)

- 9 labs (equally weighted)
- Best 8 of 9 labs will be counted

Assignments (15 %)

- 4 assignments (equally weighted).
- Late assignments (maximum 2 days) will be accepted with 25% penalty per day.
- Non-programming questions must be answered using an appropriate software tool.
- Students need access to a computer with Microsoft Access outside of class time. Times when the lab is available will be posted.
- Students are responsible for backing up and protecting their work.
- Database design tools are available in the labs.

Tests (1st test 5%, 2nd test 20 %)

Unless a medical certificate is provided, no accommodation is made for missed labs, tests or assignments.

Final Exam (50 %)

## Final Letter Grade Assignment

Historically, numerical percentages have been converted to letter grades using the following scale. However, instructors can deviate from these values based on pedagogical nuances of a particular class, and final grades are subject to approval by the Department Review Committee.

A+	90- 100%
A	85-89%
A-	80-84%
B+	75-79%
B	70-74%
C+	65-69%
C	60-64%
D	50-59%
F	Below 50%

## Test/Exam Requirements

Photo ID is not required.

No computer, calculator or any other electronic device (e.g. cell phone) is permitted.

## Accessibility Services

Students with documented disabilities, temporary or chronic medical conditions, requiring academic accommodations for tests/exams (e.g., private space) or during lectures/laboratories (e.g., note-takers) are encouraged to contact Accessibility Services (AS) at 786-9771 or [accessibilityservices@uwinnipeg.ca](mailto:accessibilityservices@uwinnipeg.ca) to discuss appropriate options. All information about a student's disability or medical condition remains confidential  
<http://www.uwinnipeg.ca/accessibility>

## Respectful Working and Learning Environment

All students, faculty and staff have the right to participate, learn, and work in an environment that is free of harassment and discrimination. The UW Respectful Working and Learning Environment Policy may be found online at [www.uwinnipeg.ca/respect](http://www.uwinnipeg.ca/respect)

We ask that you please be respectful of the needs of classmates and instructors/professors by avoiding the use of unnecessary scented products while attending lectures. Exposure to scented products can trigger serious health reactions in persons with asthma, allergies, migraines or chemical sensitivities. Please consider using unscented necessary products and avoiding unnecessary products that are scented (e.g. perfume).

## **Required Text Book(s)/Reading List**

Database Notes available at: [www.acs.uwinnipeg.ca/rmcfadyen/CreativeCommons](http://www.acs.uwinnipeg.ca/rmcfadyen/CreativeCommons)

## **Prerequisite Information** (This information can be found in the UW General calendar)

There are no prerequisites, however there is a restriction that this course cannot be held with ACS-2914.

## **Misuse of Computer Facilities, Plagiarism, and Cheating**

Academic dishonesty is a very serious offense and will be dealt in accordance with the University's policies. Be sure that you have read and understood Regulations & Policies #8, starting on page 27, in the 2016-2017 UW Course Calendar or <http://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf>

Students facing a charge of academic or non-academic misconduct may choose to contact the University of Winnipeg Students' Association (UWSA) where a student advocate will be available to answer any questions about the process, help with building a case, and ensuring students have access to support. For more information or to schedule an appointment, visit our website at [www.theuwsa.ca/academic-advocacy](http://www.theuwsa.ca/academic-advocacy) or call 204-786-9780.

## **Topics to be covered (tentative)**

Microsoft Access

- Creating databases, tables, indexes, queries, forms, and reports.

- Relationships diagram and referential integrity.

The relational model

- Relations

- SQL :Select, update, delete, insert Joins

Database design

- Entity-Relationship Diagrams

- Normal Forms: 1NF, 2NF, 3NF, BCNF Normalization

Other topics as time permits.