THE UNIVERSITY OF WINNIPEG

APPLIED COMPUTER SCIENCE

Course Number - ACS-4906-001 / GACS-4906/3-001
Course Name – Conceptual Modeling

Instructor Information

Instructor: **Ron McFadyen** **Office:** 3D21
E-mail: **r.mcfadyen@uwinnipeg.ca** **Office Hours**: Weds 10:15 am - 11:15 am
or by email appointment

Class Meeting Time: Mon, Wed @ 11:30 am – 12:45 pm **Room No:** 3D03
Course Web Page: https://courses.acs.uwinnipeg.ca/4906
Assignments Home Page: https://nexus.uwinnipeg.ca

Important Dates

First Class:	Jan 7, 2019
Reading Week (no classes)	Feb 17 – 23, 2019
Midterm Tests:	Feb 6, 2019 & Mar 6, 2019
Final Withdrawal Date w/o academic penalty:	Mar 15, 2019

(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)

Last Class:	April 3, 2019
Final Exam:	April 18, 2019 @ 1:30 pm – 4:30 pm

Course Objectives/Learning Outcomes

The primary objective is to provide the student with additional skills and techniques suitable for the design of databases. Students will gain experience with an advanced modelling tool: Visual Studio with the NORMA plugin for Object Role Modeling (ORM).

Evaluation Criteria

- Assignments: 15%
    - All assignments are to be completed individually
    - There will be 3 assignments worth 5% each
        - May include theory, programming and/or analysis exercises
    - Due at 11:59:59 pm on due dates
    - Late assignments will be accepted, with 20% off for each late day – up to maximum of 2 days late.
    - Assignments reports are only submitted using Nexus as PDF (Portable Document Format) files and code (*tba* files). The details of submission procedure will be stated in each assignment.
    - Multiple submissions are permitted. Students may submit a partially completed assignment, and will receive credit for those attempted problems
    - Start early. Students are responsible for maintaining backups of their work

- Midterm Exam: test 1: 15%; test 2: 20%
    - tests are during class time

- Final Exam: 50%
    - The final exam covers all material discussed in the course

Exam Requirements

- Photo ID at exam is required.
- You are expected to write the test/exam on its given day.
- No electronic devices (e.g. cell/smart phone, laptop, scientific calculators, translators, etc.) are permitted.
- Midterm and final exams are closed-book.
- Unless a medical certificate is provided, no accommodation is made for missed exams.

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

Prerequisite and Restriction Information*

(This information can be found in the UW Undergraduate Academic Calendar)

- Requisite courses: ACS-3902 with a minimum grade of C

Email Communication

Emails from accounts at uwinnipeg.ca are usually not filtered by the UofW email filter. Thereby it is recommended electronic communication used for the course utilize a UofW email account to minimize the risk of filtering.

Services for Students

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 to discuss appropriate options. All information about a student's disability or medical condition remains confidential http://www.uwinnipeg.ca/accessibility.

Students may choose not to attend classes or write examinations on holy days of their religion, but they must notify their instructors at least two weeks in advance. Instructors will then provide opportunity for students to make up work examinations without penalty. A list of religious holidays can be found in the 2018-19 Undergraduate Academic Calendar.

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 .

Misuse of Computer Facilities, Plagiarism, and Cheating

Academic dishonesty is a very serious offense and will be dealt with in accordance with the University's policies. Be sure that you have read and understood Regulations & Policies #8, in the 2018-2019 UW Undergraduate Academic Calendar available at http://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf and the UW academic misconduct policy available at http://pace.uwinnipegcourses.ca/sites/default/files/pdfs/publications/Academic%20Misconduct%20Policy.pdf

Avoiding Academic Misconduct. Uploading essays and other assignments to essay vendor or trader sites (filesharing sites that are known providers of essays for use by others who submit them to instructors as their own work) involves "aiding and abetting" plagiarism. Students who do this can be charged with Academic Misconduct.

Avoiding Copyright Violation. Course materials are owned by the instructor who developed them. Examples of such materials are course outlines, assignment descriptions, lecture notes, test questions, and presentation slides. Students who upload these materials to filesharing

sites, or in any other way share these materials with others outside the class without prior permission of the instructor/presenter, are in violation of copyright law and University policy. Students must also seek prior permission of the instructor /presenter before photographing or recording slides, presentations, lectures, and notes on the board.

Additional information is available at University of Winnipeg library video tutorial "Avoiding Plagiarism" https://www.youtube.com/watch?v=UvFdxRU9a8g

Text Book(s) / Reading List / Tools

We will use the following book as guide, supplemented with readings throughout the course:

- Information Modeling and Relational Databases; Halpin/Morgan; 2nd edition; Morgan Kaufmann Publishers; 978-0-12-373568- 3

Class notes and notices will be available on the course web page. Students are responsible for material covered in class and announcements made in class.

Topics to be covered (Tentative)

Topics from chapters 1 through 11, and 14 will be chosen to illustrate the design and use of a conceptual schema. This includes (as time permits):
modeling approaches; information levels; first steps; uniqueness constraints; mandatory roles; value, set, and subtype constraints; object role modeling; entity-relationship modeling; data modeling in UML; advanced modeling issues; mapping from ORM to ER, to UML, to relational; and schema transformations.

Note that all topics listed may not be covered and may be offered in a slightly different time order.

Additional Course Related Information

1. When it is necessary to cancel a class due to exceptional circumstances, instructors will make every effort to inform students via uwinnipeg email (and/or using the preferred form of communication, as designated in this outline), as well as the Departmental Assistant and Chair/Dean so that class cancellation forms can be posted outside classrooms

2. Students are reminded that they have a responsibility to regularly check their uwinnipeg e-mail addresses (and/or using the preferred form of communication, as designated in this outline) to ensure timely receipt of correspondence from the university and/or their course instructors

3. Please note that withdrawing before the VW date does not necessarily result in a fee refund (March 15 is VW date for classes that begin in January and end in April).

4. No make-up classes scheduled

5. No classes:
   Dec 22/18-Jan 2/19 University closed