THE UNIVERSITY OF WINNIPEG

APPLIED COMPUTER SCIENCE

Course Number- ACS-2814/3
Course Name – Applications of Database Systems

Instructor Information
Instructor : Dr. Yangjun Chen   **Office: 3D27**
E-mail: ychen2@uwinnipeg.ca
Office Hours: 13:30 - 17:00 on Tuesday and Thursday (teaching)
                                13:00 – 15:00 on Friday
Class Meeting Time: Tuesday and Thursday 10:00 am- 11:15 am   **Room No.:** 3D01
Lab1 Meeting Time: Friday 11:00:00 am – 12:15 pm   **Room No.:** 3C13
Lab2 Meeting Time: Friday 4:00:00 pm – 5:15 pm   **Room No.:** 3C13

Important Dates
1. First Class Date: Sept. 04, 2018
2. Final Exam (Comprehensive): TBD
3. Final Withdrawal Date w/o academic penalty: Nov. 12, 2018
   (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)
4. Reading Week: Oct, 7 – 13, 2018 (No classes)
5. Other Deadlines (e.g., assignments, term papers/projects):
   four assignments, the deadlines will be determined during the course.

   All assignments are handed in at class on the due date.
   All works must be prepared using a word processor and placed in a folder.
   Late assignments are accepted (up to 1 day late) and receive a 25% penalty.

6. Midterm Exam/Tests/Quizzes: Oct. 25, 2018

Course Objectives/Learning Outcomes
The course introduces relational database design, development and programming using
Microsoft Access. Specifically it:
- introduces Entity-Relationship modeling, relational databases, and normalization
- focuses on introductory issues of creating tables, indexes, relationships, forms, reports
  of lists and grouped data, selection queries and action queries, macros.
- emphasizes hands-on experience through classroom lectures, weekly labs for practice
  and exploration, SQL, and assignments.

Evaluation Criteria

(i)   Assignments (20 %)
- Approximately five assignments
- Assignments will be accepted up to one day late with a 25% penalty.
- Assignments are equally weighted.
- Non-programming questions on assignments must be answered using a word processor (exception: drawings – these can be neatly drawn.)
- Students will need access to a microcomputer with Microsoft Access outside of class time. This is necessary not only to review class material, but to work on assignments. Times when the lab is available will be posted.
- Students are responsible for backing up and protecting their work.

(ii)   Midterm Exam. (including to tests) (20%)

(iii)   Lab (10%)

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

(iv)   Final Exam. (50%)

Exam Requirements

- No photo ID is required.
- Calculators/electronic translators but the text book can be used.

Required Text Book(s)/Reading List

Exporing Macrosoft Access 2010 Comprehensive by Robert T. Grauer, Robert Grauer, Mary Anne Poatsy, Keith Mast, and Lynn Hogan, ISBN-13: 978-0-13-156788-7; or some more recent versions

Class Notes are available on the web page: http://www.uwinnipeg.ca/~ychen2.

Prerequisite Information*

N/A

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., notetakers) 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 2017-18 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 2017-2018 UW Undergraduate Academic Calendar available at http://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf.

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

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.

Topics to be covered
Topics from Design Notes
>   ER Modeling
>   Relational databases – relations, SQL Select
>   Normalization – 1NF, 2NF, 3NF, BCNF
>   Mapping ERDs to RDBs

Topics from Exploring Microsoft Access 2003 with VBA, chapters 1 through 8
1. Overview and introduction to MS Access 2010.
2. Design of tables, forms.
3. Reports and queries.
4.   Relationships in MS Access, External data, Exporting, queries, charts, switchboard, Compacting, …
5. RI, Subforms, …
6. Surrogate keys, ...
7. Macros, Linking, …
8. VBA

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 (November 12 is VW date for classes that begin in September and end in December).

4. No make-up classes scheduled

5. No classes:
   October 8, 2018 Thanksgiving
   October 7-13, 2018 Mid-term reading week
   November 11, 2018 Remembrance Day
   Dec 22/18-Jan 2/19 University closed