Brock University
Department of Computer Science

COSC 3P32 – Introduction to Database Systems
Winter 2020

Instructor:
 Sheridan Houghten (J313)
Prerequisite:
 COSC 2P03 (minimum 60%)

Course Description:
 This course examines fundamental database concepts.

Textbook:
 Database Management Systems, 3rd edition, Raghu Ramakrishnanan & Johannes Gehrke, McGraw-Hill, ISBN: 0-07-246563-8.

Library Reserves:
The textbook will be placed on reserve at the library, along with the following additional references:

 A First Course in Database Systems, 2nd edition, Jeffrey D.Ullman & Jennifer Widom, Prentice-Hall.
 Databases Demystified, 2nd edition, Andrew Oppel, McGraw-Hill.

Mark Distribution
 Assignments (3): 1x10% and 2x5%
 Group Project (2 parts): total 17%
 Lab activities: total 3%
 Midterm Exam: 20%
 Final Exam: 40%

Tentative Outline:
Note that additional reading, including from other sources, may be required.
 – Introduction to Database Systems
 – The Entity-Relationship (ER) Model
 – Introduction to the Relational Model
 – Query Languages: Relational Algebra and SQL
 – Schema Refinement and Normal Forms
 – Storage and Indexing
 – Transaction Management
 – Optional Topics, including (but not limited to) Query Evaluation, Security.

Important Dates:
– Last date for withdrawal without academic penalty: Friday, 6th March, 2020.
– Last date to receive notification of at least 15% of final grade: Friday, 28th February, 2020.

Course Policies:

Illness: If you miss a test or coursework due to illness, you must submit a student medical certificate (http://www.cosc.brocku.ca/forms/medical) *within 3 days of the illness*, at the main office in the Computer Science department.

Plagiarism: The department views plagiarism as a serious issue. Students may visit http://www.cosc.brocku.ca/about/policies/plagiarism to view the department's policies on plagiarism.

Final Exam: To pass this course, you must obtain a mark of at least 40% on the final exam.

Midterm Test: The midterm test will be given during class time, on a preannounced date.

Additional Notes:
– Completion of this course will replace previous assigned grade and credit in COSC 2P32.
– Questions and discussion are encouraged in class.
– All **assignments** are to be completed individually. Assignments will vary in weight; the weight will be given on the assignment text. Assignments carrying a higher weight are naturally expected to require more time to complete.
– The **project** is to design and implement a database system using a specified relational DBMS. Each group should be composed of 3-4 members. Unless there are exceptional circumstances, all members of the same team will receive the same mark for the project. The instructor has the right to make a decision regarding the makeup of teams and the allocation of marks within each individual team; once made, such a decision will be final.
– Due dates for assignments, project components and lab activities will be provided on the assignment text. Such work will be accepted up to 3 days late with a one-time penalty of 25%. You are strongly encouraged to hand in all course work even if incomplete. Generally it is to your advantage to hand in course work on time, even if incomplete.
– All assignments and projects must be submitted in the 3P32 assignment box, in an envelope with an attached, signed cover page.
– To generate an assignment cover page visit http://www.cosc.brocku.ca/forms/cover.
– Each part of the project must be submitted using a team cover page. To generate a team cover page, visit http://www.cosc.brocku.ca/forms/teamcover.
– There are scheduled labs for this course however the labs will only be staffed when lab activities are to be completed. The dates of scheduled lab activities will be announced in class and on the course webpage. For assistance at other times and for assignments in particular, students should go to the COSC help desk in J328 during the scheduled times, shown here: http://www.cosc.brocku.ca/help