

School of Information Management

INFO341 ADVANCED DATABASE MANAGEMENT AND PROGRAMMING

Trimester 2, 2015

COURSE OUTLINE

Class Times and Room Numbers

Lecture: RHLT3 Monday 10:30 -11:20 **Office Hours:** Thursday & Friday 10am - 11am

Workshop: RWW415

Names and Contact Details

| Role | Name | Room | Tel. | E-mail |
|-----------------------------------|-----------------|-------|----------|-----------------------|
| Course Coordinator | Dr Tiong T. Goh | RH403 | 463 6860 | tiong.goh@vuw.ac.nz |
| SIM Undergraduate Support Team | | RH502 | 463 6998 | simstudents@vuw.ac.nz |

Assessment Requirements

| Tasks | Learning Objectives | Due Date | Percentage |
|-----------------------|-------------------------|-----------------|------------|
| Assignment 1 | LO1, LO3, LO4 | 9/9 2pm | 20 |
| Class Test | LO1, LO2,LO3, LO4, LO5 | 15/10 5:30-7:30 | 30 |
| Assignment 2 | LO1, LO2, LO3, LO4, LO5 | 30/10 2pm | 30 |
| 5 Workshop submission | LO1, LO2, LO3, LO4, LO5 | TBA | 5 |
| 5 Tutorial submission | LO1, LO2, LO3, LO4, LO5 | TBA | 5 |
| 5 Pop Quizzes | LO1, LO2, LO3, LO4, LO5 | | 10 |
| Total | | | 100 |

The Assessment Handbook will apply to all VUW courses, see

http://www.victoria.ac.nz/documents/policy/staff-policy/assessment-handbook.pdf.

Trimester Dates

Teaching Period: From Monday 13th July – Friday 30th October

Mandatory Course Requirements

In addition to obtaining an overall course mark of 50 or better, students must:

- 1. Attend at least 10 lectures.
- 2. Attend at least 4 workshops and 4 tutorials.
- 3. Submit at least 4 workshops and 4 tutorial exercises.

^{*}attendance is considered valid only if student attended the full duration of the class.

If you cannot complete an assignment or sit a test or examination, refer to www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat

Any student who is concerned that they have been, or might be, unable to meet any of the mandatory course requirements because of exceptional personal circumstances, should contact the course coordinator as soon as possible.

Examinations

There is no final exam.

Readings

The following textbooks are required:

Coles, M., Shaw, S., Natarajan, J., & Bruchez, R. (2012). Pro T-SQL 2012 Programmer's Guide. Apress.

E-book can be downloaded from VUW library http://vuw.eblib.com.helicon.vuw.ac.nz/patron/FullRecord.aspx?p=1156068

or purchase from http://link.springer.com/book/10.1007/978-1-4302-4597-1

Walters, R. E., Coles, M., Rae, R., Ferracchiati, F., Farmer, D. (2008) Accelerated SQL Server 2008 [electronic resource] Publisher: Berkeley, CA: Robert Walters, 2008. ISBN: 9781430206064. E-book can be downloaded from VUW library.

Course Content

This is an advanced enterprise level database management and programming course. Students will acquire the knowledge needed to develop a business solution using an enterprise level database server, and an appreciation of the issues and trade-offs relevant to practical solutions in the real life environment.

| Wk | Date | Topic | Tutorial | Workshop | Readings | Due |
|----|-------|--------------------------------|------------|------------|-------------|--------------------------|
| 1 | 13/7 | Database Files & User Admin | | | SUP | |
| | | | | | | |
| 2 | 20/7 | Programming T-SQL | Tutorial 1 | Workshop 1 | Coles Ch3,8 | |
| | | | | | | |
| 3 | 27/7 | User-Defined Functions | | | Coles Ch4 | |
| | | | | | | |
| 4 | 3/8 | Triggers 1 | Tutorial 2 | Workshop 2 | Coles Ch6 | |
| | | | | | | |
| 5 | 10/8 | Triggers 2 | | | Coles Ch6 | |
| | | | | | | |
| 6 | 17/8 | Stored Procedures | Tutorial 3 | Workshop 3 | Coles Ch5 | |
| | BREAK | | | | | |
| 7 | 7/9 | Integrated Full-Text Search 1 | | | Coles Ch10 | Assignment 1 due 9/9 2pm |
| | | | | | | |
| 8 | 14/9 | Integrated Full-Text Search 2 | | | Coles Ch10 | |
| | | | | | | |

| Wk | Date | Topic | Tutorial | Workshop | Readings | Due |
|----|-------|------------------------|------------|------------|----------|----------------------------|
| 9 | 21/9 | Data Analytics 1 | Tutorial 4 | Workshop 4 | SUP | |
| | | | | | | |
| 10 | 28/9 | Data Analytics 2 | | | SUP | |
| | | | | | | |
| 11 | 5/10 | Social Media Analytics | Tutorial 5 | Workshop 5 | SUP | |
| | | | | | | |
| 12 | 12/10 | Review class Test | | | SUP | Class Test 15/10 RHLT1 |
| | | | | | | Assignment 2 due 30/10 2pm |

Course Learning Objectives

| Learning objectives | By the end of this course, students should be able to: | Graduate Attributes | Major Attributes |
|---------------------|---|------------------------|---------------------|
| LO1 | design, specify and implement a working business solution using an enterprise level database | LG1 LG2 LG4 LG5 | MA3 MA4 |
| LO2 | develop effective interfaces for data queries and reports | LG1 LG2 LG5 | MA3 |
| LO3 | apply advanced query language, views, triggers, user defined functions, and stored procedures | LG1 LG4 LG5 | MA3 |
| LO4 | enhance business rules and data integrity | LG1 LG5 | MA6 |
| LO5 | apply security measures to a database | LG1 LG5 | MA6 |

Withdrawal from Course

- 1. Your fees will be refunded if you withdraw from this course on or before Friday 24 July 2015.
- 2. The standard last date for withdrawal from this course is Friday 25 September. After this date, students forced to withdraw by circumstances beyond their control must apply for permission on an 'Application for Associate Dean's Permission to Withdraw Late' including supporting documentation. The application form is available from either of the Faculty's Student Customer Service Desks.

Course Delivery

Students are expected to complete the assignments in order to understand the concepts and theories taught during lectures. Students should also prepare for the workshop and tutorial prior to their allocated time. Class test will evaluate and assess your understanding about the theories, concepts and technologies learnt throughout the course. Assignment will assess your knowledge in implementing a working solution using an enterprise level database and tools.

Expected Workload

In terms of weekly course workload, expect to spend one hour in each lecture, two hours in each workshop, one hour in each tutorial and about seven to ten hours working on your own per week in preparation for lectures, workshops, assignments, tests, and quizzes.

Materials and Equipment

Students are *expected to have the following* for each computer workshop:

- A computer account by the first week of the term
- A storage device to save all work
- Read the workshop requirement prior to their allocated workshop time

Practicum Arrangements

Workshop and tutorial slots will be available on the sign-up system https://student-sa.victoria.ac.nz/ You must select only one time slot that fits your timetable.

Extensions and Penalties

Extensions

Personal extensions are granted only in special circumstances and supporting evidence such as a medical certificate may be requested by the course coordinator or SIM undergraduate support team.

Non-extendable assessments. For some work, such as lab projects, case discussion preparation, quizzes, workshop and tutorial preparation there is no possibility of late submission as the opportunity for the work to be completed has already passed.

Penalties

The penalty for late submission of work without a prior extension arrangement is a reduction of 10% of the available marks each calendar day, starting from the due date and time, up to 5 days after the due date. At the course coordinator's discretion, work handed in after 5 days may be assessed and feedback provided, but no grade will be assigned.

Class Representative

A class representative will be elected in the first class, and that person's name and contact details made available to VUWSA, the Course Coordinator and the class. The class representative provides a communication channel to liaise with the Course Coordinator on behalf of students.

Communication of Additional Information

All notices relating to this course will be posted on Blackboard. www.blackboard.vuw.ac.nz

Link to general information

For general information about course-related matters, go to http://www.victoria.ac.nz/vbs/studenthelp/general-course-information

Note to Students

Your assessed work may also be used for quality assurance purposes, such as to assess the level of achievement of learning objectives as required for accreditation and academic audit. The findings may be used to inform changes aimed at improving the quality of VBS programmes. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the course.
