

School of Information Management

INFO341 ADVANCED DATABASE PROGRAMMING

Trimester 2, 2014

COURSE OUTLINE

Class Times and Room Numbers

Lecture: RHLT2 Monday 12:40 -1:30

Office Hours: Thursday & Friday 9am – 10am

Workshop: RWW415 <https://signups.victoria.ac.nz>

Names and Contact Details

Role	Name	Room	Tel.	E-mail
Course Coordinator	Dr Tiong T. Goh	RH403	4636860	tiong.goh@vuw.ac.nz
Senior Tutor	Wei Wei Li	RH502	4636998	weiwei.li@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	7/10 5:30-7:30	25
Assignment 2	LO1, LO2, LO3, LO4, LO5	29/10 2pm	35
5 Workshop submission	LO1, LO2, LO3, LO4, LO5	TBA	5
5 Tutorial submission	LO1, LO2, LO3, LO4, LO5	TBA	5
4 Pop Quizzes	LO1, LO2, LO3, LO4, LO5		10
Total			100

From Trimester 1, 2014, a revised Assessment Handbook will apply to all VUW courses: see <http://www.victoria.ac.nz/documents/policy/staff-policy/assessment-handbook.pdf>.

In particular, there will be a new grade scheme, in which the A+ range will be 90-100% and 50-54% will be a C-.

Trimester Dates

Teaching Period: From Monday 14th July – Friday 17th October

Mandatory Course Requirements

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

1. Attended at least 10 lectures.
2. Attended at least 4 workshops and 4 tutorials.

***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

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.

NOTE: Pro T-SQL 2012 Programmer's Guide can be purchased 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.

Prescription

An advanced enterprise level database management and programming course. A business solution is developed using enterprise level database server giving an appreciation of issues and trade-offs relevant to practical solution in the real life environment.

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	19/7	Database Files & User Admin			SUP	
2	19/7	Programming T-SQL	Tutorial 1	Workshop 1	Coles Ch 2,4,9	
3	28/7	User-Defined Functions			Coles Ch5	
4	4/8	Triggers 1	Tutorial 2	Workshop 2	Coles Ch 7	
5	11/8	Triggers 2				
6	18/8	Stored Procedures	Tutorial 3	Workshop 3	Coles Ch 6	
BREAK						
7	8/9	Integrated Full-Text Search 1			Coles Ch 10	Assignment 1 due 9/9 2pm
8	15/9	Integrated Full-Text Search 2			SUP	
9	22/9	Data Analytics 1	Tutorial 4	Workshop 4	SUP	
10	29/9	Data Analytics 2			SUP	
11	6/10	Social Analytics	Tutorial 5	Workshop 5	SUP	Class Test
12	13/10	Sentiment Analysis			SUP	
						Assignment 2 due 29/10 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 25 July 2014.
2. The standard last date for withdrawal from this course is Friday 26 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 project.

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 slot will be available on the sign-up system:

<https://signups.victoria.ac.nz>

You must select only one time slot that fits your timetable.

Penalties

In fairness to other students, late work will incur a 10% penalty (of the value of the project/assignment) for each calendar day late. Work that is more than 3 days late will not be accepted without a granted extension. **Extensions to project/assignment deadlines are not ordinarily granted.** Discuss with the Course Coordinator any extraordinary personal circumstances which affect your ability to meet the deadline. You will be asked to verify your claim, e.g., produce medical certificates.

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.

Assignment 1 Rubric – 20% contribution towards overall assessment				
<i>Aspect</i>	<i>Exemplary</i>	<i>Satisfactory</i>	<i>Unsatisfactory</i>	<i>Marks</i>
SQL script	Provide a perfect solution without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	20
Recursive and cursor script	Provide a perfect solution without errors	Provide a reasonable solution with minor mistakes	Incorrect model with major errors	20
UDF	Provide a perfect model without errors	Provide a reasonable relationship with minor mistakes	Incorrect relationship with major errors	20
Triggers	Provide a perfect solution without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major syntax errors	20
Stored Procedures	Provide a perfect solution without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major syntax errors	20
				100

Class Test Rubric – 25% contribution towards overall assessment				
<i>Aspect</i>	<i>Exemplary</i>	<i>Satisfactory</i>	<i>Unsatisfactory</i>	<i>Marks</i>
Introduction to SQL2008 server and database files	Provide a perfect solution without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	10
Programming T-SQL	Provide a perfect solution without errors	Provide a reasonable solution with minor mistakes	Incorrect model with major errors	15
User-Defined Functions	Provide a perfect model without errors	Provide a reasonable relationship with minor mistakes	Incorrect relationship with major errors	10
Triggers	Provide a perfect solution without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major syntax errors	15
Stored Procedure	Provide a perfect solution without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major syntax errors	15
Integrated Full-Text Search	Provide a perfect solution without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	15
Analytics	Provide a perfect solution without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	20
				100

Assignment 2 Rubric – 35% towards overall assessment				
<i>Aspect</i>	<i>Exemplary</i>	<i>Satisfactory</i>	<i>Unsatisfactory</i>	<i>Marks</i>
A Stored Procedure, Full text search	Provide a perfect solution without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	50
B Analytics	Provide a perfect solution without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	50
				100