TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI
VICTORIA
UNIVERSITY OF WELLINGTON

School of Information Management

INFO241 INTRODUCTION TO DATABASE MANAGEMENT AND PROGRAMMING

Trimester 2, 2014

COURSE OUTLINE

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	Weiwei Li	RH502	4636998	weiwei.li@vuw.ac.nz

Class Times and Room Numbers
Lecture: RHLT01 Wednesday 12:40 -1:30
Office Hours: Thursday & Friday 1pm – 2pm
Workshop: RWW415 https://signups.victoria.ac.nz

Assessment Requirements

Tasks	Learning Objectives	Due Date	Percentage
Assignment 1	LO1	22/8 2pm	20
Workshop Test	LO2,3	Week 11	10
Class Test	LO1,2,3,4,5	2/10 evening	25
Assignment 2	LO1,2,3,5	28/10 2pm	35
5 Workshops submission	LO1,2,3,5	TBA on Blackboard	5
5 Tutorials submission	LO1,2,3,4,5	TBA on Blackboard	5
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
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 5 workshops and 5 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, refer to
www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat

Examinations
There is no final exam.

Course Content
Continuing from your study of programming in INFO102, this course is designed to provide students with an introduction to database concepts, relational database modelling and application development. Topics include DBMS, database query language, normalisation, database design methodology, programming and database application development, database administration, and other emerging topics. Upon completing this course, students will be prepared for INFO341 and INFO320.

Week No.	Date	Lecture	Workshop	Tutorial	Readings	Tests & Assignments
1	16/7	Database Management System			Ch 1 & Ch 2	
2	23/7	Relational Database Model	Workshop 1	Tutorial 1	Ch 3	
3	30/7	ER Model			Ch 4	
4	6/8	Normalisation	Workshop 2	Tutorial 2	Ch 6	
5	13/8	Structured Query Language (DDL)			Ch 7	
6	20/8	Structured Query Language (DML)	Workshop 3	Tutorial 3	Ch 7	Assignment 1 Due 22/8 2pm
BREAK						
7	10/9	Advanced SQL & Functions			Ch8	
8	17/9	DB App Development (I)	Workshop 4	Tutorial 4	Supplement	
9	24/9	DB App Development (II)			Supplement	
10	1/10	Report Development	Workshop 5	Tutorial 5	Supplement	Class Test 2/10
11	8/10	Data Visualisation			Supplement	Workshop Test
12	15/10	DB Security	Workshop 6	Tutorial 6	Supplement	
				*Require demo and presentation for marking A2 from 29-31/10		*Assignment 2 Due 28/10 2pm

Readings
The following textbook (ebook or print) is required and can be purchased online from:
http://www.cengagebrain.co.nz/shop/en/NZ/storefront/newzealand?cmd=CLHeaderSearch&fieldValue=9781111969608

Coronel, C. Morris, S., & Rob, P. (2013). Database Systems: Design, Implementation, and Management, 10th Edition. Publisher: Course Technology. ISBN-13:978-1-111-96960-8.

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 and workshop test will evaluate and assess your understanding about the theories, concepts and technologies learnt throughout the course. Project assignment will assess your integrated knowledge in implementing a working database business application solution.

Prescription

INFO241 gives an introductory approach to database management and programming from information systems and management perspectives. Topics include evaluation of business database systems, database design, ER and business modelling, basic database query language, business application development and programming and database administration.

Course Learning Objectives

Learning objectives	By the end of this course, students should be able to:	Graduate Attributes	Major Attributes
LO1	use complex data modelling techniques to design and develop databases for business applications.	LG1 LG2 LG4 LG5	MA3 MA4
LO2	apply query language tools for efficient database development.	LG1 LG2 LG5	MA3
LO3	design and develop programs, including effective user interfaces, for practical database applications.	LG1 LG4 LG5	MA3
LO4	explain database administration and security issues.	LG1 LG5	MA6
LO5	assess the importance of emerging topics.	LG1 LG5	MA6

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 for workshop and one time slot for tutorial that fit your timetable.

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, tutorials, assignment, 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

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.

Withdrawal from Course

1. Your fees will be refunded if you withdraw from this course on or before Friday 25th July 2014.

2. The standard last date for withdrawal from this course is Friday 26th 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.

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.

Student feedback

Student feedback on University courses may be found at**:**
www.cad.vuw.ac.nz/feedback/feedback_display.php

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.

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Assignment 1 Rubric – 20% contribution towards overall assessment				
Topic	*Exemplary*	*Satisfactory*	*Unsatisfactory*	*Marks*
Database Management System	Provide a perfect solution without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	20
ERD	Provide a perfect solution without errors	Provide a reasonable solution with minor mistakes	Incorrect model with major errors	20
Relational model	Provide a perfect model without errors	Provide a reasonable relationship with minor mistakes	Incorrect relationship with major errors	20
Normalisation	Correctly normalised without errors	Provide a reasonable normalisation with minor mistakes	Incorrect solution with major errors	20
SQL	Provide a perfect solution without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major syntax errors	20
	Total			100

Class Test Rubric – 25% contribution towards overall assessment				
Topic	*Exemplary*	*Satisfactory*	*Unsatisfactory*	*Marks*
Application development	Correctly explain application code	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	20
DBMS & Relational model	Correctly construct relational model without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	20
ERD	Correctly construct ERD without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	20
Normalisation	Correctly normalised without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	20
Queries	Correctly write effective queries without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	20
	Total			100

Workshop Test Rubric – 10% contribution towards overall assessment				
Topic	*Exemplary*	*Satisfactory*	*Unsatisfactory*	*Marks*
Database design	Correctly design database that meets requirements without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	20
Application	Correctly design application without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	30
SQL	Correctly apply SQL and integrate with application without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	20
Advanced SQL and control	Correctly apply advanced SQL/functions and control without errors	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	30
	Total			100

Assignment 2 Rubric – 35% towards overall assessment **subject to changes				
Aspect	*Exemplary*	*Satisfactory*	*Unsatisfactory*	*Marks*
1 Database design	Correctly design effective database that meets project requirements.	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	10
2 Database scripts	Correct design scripts that meets project requirements.	Provide a reasonable solution with minor mistakes	Incorrect solution with major errors	20
3 Interface/Coding design	Creative design that meets project requirements.	Provide a reasonable solution and missing some requirements	poor solution and missing requirements	40
4 Reporting/Visualisation design	Creative design that meets project requirements.	Provide a reasonable solution and missing some requirements	poor solution and missing requirements	20
5 Documentation Doc File, Zipped Files with all resources	Did not submit or incomplete folder = Overall Assignment 2=0			10
	Total			100