

School of Information Management

**INFO 264 BUSINESS ANALYTICS**

Trimester 2, 2015

**COURSE OUTLINE**

**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

**Class Times and Room Numbers**

**Lecture:** GBLT02 Tuesday 10:30 -12:20  
**Office Hours:** Course Coordinator Thursday & Friday 1pm – 2pm  
 UG Support Team Mon-Fri 10-4pm or by appointment  
**Workshop:** RWW415

**Assessment Requirements**

Tasks	Learning Objectives	Due Date	Percentage
Assignment 1	LO1,2	21/8 2pm	20
Class Test	LO1,2,3,4,5	16/10 (5:30pm-7:30pm)	30
Assignment 2	LO1,2,3,5	27/10 2pm	25
6 Workshops submission	LO1,2,3,5	TBA	10
8 Lecture exercises <sup>†</sup>	LO1,2,3,4,5	TBA	15
<b>Total</b>			<b>100</b>

The Assessment Handbook will apply to all VUW courses: see <http://www.victoria.ac.nz/documents/policy/staff-policy/assessment-handbook.pdf>

**Trimester Dates**

From Monday 13th July to – Tuesday 27th October

**Mandatory Course Requirements**

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

1. Attend at least 10 lectures and submit at least 6 lecture exercises.
2. Attend at least 5 workshops and submit at least 5 workshop exercises.\*

**\*attendance is considered valid only if student attended the full duration of the class.**

**†lecture exercise is delivered to student during lecture only.**

If you cannot complete an assignment or sit a test, refer to [www.victoria.ac.nz/home/study/exams-and-assessments/aeerotat](http://www.victoria.ac.nz/home/study/exams-and-assessments/aeerotat)

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

### Examinations

There is no final exam.

### Course Content

This course will provide students with an introduction to business analytics. Topics include enterprise database implementation, data warehouse design, ETL process, OLAP query extension, predictive analytics and data mining. Upon completing this course, students will be prepared for a business analytics career.

Wk	Date	Topic	Workshop	Readings	Due
1	14/7	Introduction to Enterprise Database Implementation		Coronel Ch6,7 Sup	
2	21/7	Introduction to Data Warehouse	Workshop 1	Coronel Ch13 Sharda Ch3 sup	Lecture Exercise
3	28/7	Data warehouse-design I		Coronel Ch13 Sharda Ch3 sup	Lecture Exercise
4	4/8	Data warehouse-design II	Workshop 2	Coronel Ch13 Sharda Ch3 sup	Lecture Exercise
5	11/8	Data warehouse ETL process		Coronel Ch13 Sharda Ch3 sup	Lecture Exercise
6	18/8	OLAP and SQL extension	Workshop 3	Coronel Ch13 Sharda Ch3 Sup	Assignment 1
<b>BREAK</b>					
7	8/9	Introduction to Analytics		Shmueli Ch1,2	Lecture Exercise
8	15/9	Multiple regression and K-Nearest Neighbours	Workshop 4	Shmueli Ch6,7	Lecture Exercise
9	22/9	Classification and Regression Tree		Shmueli Ch9	Lecture Exercise
10	29/9	Logistic Regression and Neural Nets	Workshop 5	Shmueli Ch10,11	Lecture Exercise
11	6/10	Mining Relationships Association Rules		Shmueli Ch13,14	Lecture Exercise

Wk	Date	Topic	Workshop	Readings	Due
		Cluster Analysis			
12	13/10	Review Class Test	Workshop 6		Class Test 16/10 RHLT1
					Assignment 2

## Readings

The following textbook (ebook or print) is required and can be purchased online from:

<http://au.wiley.com/WileyCDA/WileyTitle/productCd-EHEP002378.html#purchase>

Shmueli, G., Patel, N. R., & Bruce, P. C. (2011). Data mining for business intelligence: concepts, techniques, and applications in Microsoft Office Excel with XLMiner. John Wiley and Sons.

Other references are:

<http://www.cengagebrain.co.nz/shop/search/9781285196145>

Coronel, C. & Morris, S. (2015). Database Systems: Design, Implementation, and Management, 11th Edition. Publisher: Course Technology. ISBN10: 1-285-19614-7.

<http://www.pearsoned.co.nz/9781292009261>

Sharda, R., Delen, D., Turban, E., Aronson, J., & Liang, T. P. (2014). Business Intelligence and Analytics: Systems for Decision Support ISBN: 9781292009261

## 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 prior to their allocated time. Class test will evaluate and assess your understanding about the theories, concepts and technologies learnt throughout the course.

## Prescription

INFO264 covers the techniques of collecting, organising and analysing historic data to improve business processes and predict customer behaviour. Students will use analytical software for data mining, decision support, supply chain management, simulation, and optimisation.

## Course Learning Objectives

Learning objectives	By the end of this course, students should be able to:	Graduate Attributes	Major Attributes
LO1	Apply basic principles of data mining and web mining	LG1 LG2 LG4 LG5	MA3 MA4
LO2	Implement key components of online analytic processing	LG1 LG2 LG5	MA3
LO3	Plan, organise and evaluate methods to prepare raw data for business analytics	LG1 LG4 LG5	MA3
LO4	Apply analytics on BI Software to answer business questions	LG1 LG5	MA6

## Practicum Arrangements

Workshop slot will be available on the sign-up system myAllocator <https://student-sa.victoria.ac.nz/>  
You must select only one time slot for a workshop that fits your timetable. Students are *expected to have a laptop during lecture*.

## **Expected Workload**

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

## **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, lecture exercises and workshop 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 per calendar day late up to 5 days after the due date. A calendar day begins from the due date and time.

At the course coordinators discretion, work handed in after 5 days may be assessed and feedback provided, but no grade will be assigned.

## **Withdrawal from Course**

1. Your fees will be refunded if you withdraw from this course on or before Friday 24th July 2015.
2. The standard last date for withdrawal from this course is Friday 25th 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 or [online](#).

## **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](http://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](http://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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