

School of Management

MGMT 316 DECISION MODELLING FOR MANAGERS

Trimester 2, 2016

COURSE OUTLINE

Names and Contact Details

COURSE COORDINATOR & LECTURER

Professor Vicky Mabin

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Office hours will vary, so please call by my office, or email for an appointment.

COURSE LECTURER

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TUTORIAL/LAB SUPPORT

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UNDERGRADUATE PROGRAMME MANAGER

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Prescription

An examination of selected managerial problem structuring methodologies and analytic approaches to decision-making, emphasising an applied computer-oriented approach, and the development of decision-making, problem-solving and judgmental skills, particularly for situations involving risk and uncertainty.

Course Learning Objectives

Objective	By the end of this course, students should be able to:	Addressed via
CLO 1	Interpret major frameworks, approaches, concepts and conceptual vocabulary relevant to decision modelling for managers;	Assignment 1 & 2, Tutorial/labs and Exam
CLO2	Critically analyse different frameworks and modelling approaches and use them to enhance decision making capabilities;	Assignment 1 & 2, Tutorial/labs, and Exam
CLO 3	Identify key elements of managerial decision situations, and develop robust solutions through decision modelling;	Assignment 1 & 2, Lectures, Tutorial/labs and Exam
CLO 4a	Recognise and demonstrate the importance of ... critical analysis and critical assessment of decision models and the outcomes of decision modelling;	Assignments 1 & 2, Lectures, Tutorial/labs and Exam
CLO 4b	Recognise and demonstrate the importance of ... leadership ... in setting managerial problem solving objectives and decision criteria as a basis for decision and policy modelling;	Lectures, Tutorial/labs
CLO 4c	Demonstrate an ability to communicate clearly in written, diagrammatic and oral form ... a critical assessment of decision models and the outcomes of decision modelling;	Assignments 1 & 2, Tutorial/labs and Exam
CLO 5	Recognise ethical and social responsibility issues related to decision and policy modelling.	Lectures, Tutorial/labs and Exam

Course Content

A course schedule is provided at the end of the course outline.

Trimester Dates

Teaching Period: Monday 11th July – Friday 14th October

Study Period: Monday 17th October – Thursday 20th October

Examination Period: Friday 21st October – Saturday 12th November (inclusive)

Class Times and Room Numbers

Class: Weekly on Thursdays 09:30am - 11:20am in Rutherford House RHLT2

Tutorial/Workshop: (TWO hours) each week except weeks 1 and 11 – times/locations shown below.

Tutorial / Workshop: Choose ONE T/W pair out of:

T1/W1: Tuesday 12:40 – 2:30 RWW127 /RWW 102

T2/W2: Wednesday 12:40 - 2:30 RWW222 /RWW202

Tutorial signup is through the online programme **MyAllocator**. When choosing a Tutorial, please ensure you are available for the 2 hour Tut/workshop pair. In the event of a clash, contact Garry Tansley garry.tansley@vuw.ac.nz.

Withdrawal from Course

1. Your fees will be refunded if you withdraw from this course on or before Friday 22nd July 2016.
2. The standard last date for withdrawal from this course is Friday 23rd September 2016 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](#).

Course Delivery

Weekly 2 hour class to cover problem structuring concepts plus weekly tutorial and lab/workshop to learn how to apply these concepts in practice using computer models and diagramming tools as decision aids.

Lectures are run over all 12 weeks of the course. Tutorials and workshops will provide hands-on tuition to develop skills in the computer modelling approaches. These start in Week 2 and occur in the weeks shown in the schedule. There is an expectation that students will attend all lectures and tutorials offered.

Individual vs Group Work

While we encourage you to form study groups to help with your learning, there are important elements in the assessment process that are strictly individual. Collaboration on individual assignments is not allowed beyond general discussion as to how one might interpret the nature of the assignment question. **Please do not work together to formulate a response and do not loan out your completed assignments.** Assignment reports must be your own work.

Expected Workload

Students are expected to devote 10 hours per week to this course, totalling 150 hours, made up as follows:

Classes (lectures): 2 hours per week = 24

Tutorials and workshops: 2 hours per week x 10 weeks = 20

Individual preparation/reading = 2 hours/week x 12 weeks = 24

Assignment completion = 42

Exam preparation = 40

Total = 150 hours

Readings

Selected readings and resources will be provided on Blackboard.

Textbook

There is no **required** text for the course. However, the following texts are highly recommended:

EBA: Essentials of Business Analytics, 2nd Edn, by Camm, Cochran, et al (2017) Cengage Learning.

Relevant chapters of this book are being made available as an e-book from cengage.com.

QAM: Quantitative Analysis for Management, 12th Edition, by Render, Stair et al, (2015), Pearson.

Powell SG & Baker KR (2007). *Management Science: The Art of Modeling with Spreadsheets*. 2nd ed. Wiley, USA.

Savage, SL. (2003). *Decision making with Insight*. Belmont, CA: Brooks/Cole Cengage Learning.

Ragsdale, CT. (2001). *Spreadsheet Modelling and Decision Analysis*, Cincinnati: South-Western College Publishing.

The library contains a number of similar textbooks.

If you would like other recommended books, ask the course lecturer.

Materials and Equipment

Students will need to have access to a computer – either your own or the student labs – with access to Excel spreadsheet software.

For the examination, you may bring a silent calculator, but this must have the memory cleared before the start of the exam.

Mandatory Course Requirements (MCR)

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

1. Attend at least 7 of the 10 provided tutorial/lab (2 hour) sessions, and
2. Attain 40% or more in the final examination.

Attendance at tutorials/workshops is required so that students learn how to apply the tools in a supported environment, and examination is required in order for students to demonstrate that they have achieved the CLO's independently of any external assistance.

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.

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

Students who enrol in courses with examinations are obliged to attend an examination at the University at any time during the formal examination period. The final examination for this course will be scheduled at some time during the following period:

Friday 21st October – Saturday 12th November (inclusive)

Assessment

The Assessment Handbook will apply to all VUW courses: see

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

Assignment	Title	Weight	Due Date
1	Decision Analysis assignment	20	Thursday 18 August
2	Forecasting/Planning assignment	20	Thursday 6 October
3	Tutorial & Workshop Activities	10	Weeks 2 to 11
4	Final Examination	50	Between 21 Oct and 12 Nov 2016
	TOTAL	100	

These assignments are described more below:

- 1. Assignment 1: Decision Analysis Due Thursday 18 August**
Assignment 2: Forecasting/Planning Due Thursday 6 October
Individual reports each worth 20%
Handed in AT CLASS
Upload your report to Blackboard together with your spreadsheet models

Each assignment will be based on the material covered in lectures, tutorials and labs and your own application of modelling approaches (from tutorials and labs) to a business decision.

You may discuss in general how one might respond to the nature of the assignment questions with other students, but **this report must be your own work**. The assignment must be written as a management report, with a maximum of 2000 words, excluding appendices. You must also submit your spreadsheet model along with your report on Blackboard.

You should prepare two copies of each assignment, keeping the second copy for your own reference and for use during the course. You must also keep an electronic copy of your assignment.

- 2. Tutorials and labs – preparation, participation and contributions: 10%**

Participation in tutorials is crucial to the learning process on this course. Your tutorial participation marks will be based on the best 7 out of 10 tutorials offered. For each tutorial, you are expected to bring a hand-in, showing your preparation for the tutorial and lab.

The grade will depend on your preparation for, and quality of the contribution to, tutorial and workshop activities and discussions. Students should prepare in advance of the tutorial, as indicated by the lecturer, and provide a copy of your preparation to the lecturer. You should be prepared to discuss the issues with the rest of the tutorial/workshop group and engage in activities in an informed, supportive, and positive manner.

The assessment of preparation, participation and contributions will be based on the following guidelines:

Preparation, Participation and Contributions	Mark range
Minimal preparation or participation/contribution	0-2
Does some preparation, and tries to engage in activities	3-4

Prepares and engages with activities, contributes in class sometimes	5-6
Prepares well and engages with activities, contributes in a constructive way	7-8
Comes well prepared and engages fully, contributes a lot to the learning of others	9-10

3. Examination: 3-hour closed book: 50%

The **examination** is worth **50% of the total marks available** for this course.

The pass mark for the examination will be 40% of the marks available, ie 20 marks.

An examination brief will be provided at the last class on Thursday October 13th.

The final examination will be a THREE (3) hour closed book, at which a series of unseen questions must be answered. All material covered on the course will be examinable, and questions will include a mixture of problems to be worked, case-based questions, and essay questions.

Preparation for the Examination contributes to Course Learning Objectives 1, 2, 3a, 3b, 3c & 4.

Silent calculators may be used in the exam, with memories cleared before the start of the exam, but computers and communication devices are **not** permitted.

Final Grade

Your final grade will be determined from your total marks as outlined in the Assessment Handbook.

Handing in assignments:

Assignments should be placed, in hard copy form, in the **box provided in class on the day the assignment is due**. Also upload your assignment and spreadsheet models to Blackboard.

Assignments received after the due time will be deemed to be late.

All completed assignments must have a cover sheet. The cover sheets are provided in Annexes A and B.

Students must also keep an electronic copy of their work archived in case the original assignment goes missing. Failure to do so will jeopardise any claim by you that your work was submitted in the rare cases where your work goes astray.

Penalties

Late assignments are to be handed in at **Level 10 Reception, RH 1022**, during Reception Desk hours, **9am till 5pm Monday to Friday during term time**. An Administrator or Duty Receptionist will stamp the assignment with the date and time. Late assignments that do not have **the time and date and signed by** the Administrator for the course or Duty Receptionist, will incur late penalties from the time the Administrator receives it. Assignments left on the Reception Counter, or slid under the door of the Reception office will also incur penalties from the time and date they are recovered. Note that there is no provision to accept assignments on weekends or public holidays.

Penalties – for Lateness

- (i) In fairness to other students, work submitted after any deadline will incur a penalty for lateness. **The penalty is 10% of the marks available (marks available means what the assignment is worth i.e. 20% or 20 marks) for an assignment submitted after the due time on the due date for each part day or day late.** (for example if an assignment is out of 20 and the assignment receives 50% then one day late means the mark will be out of 18 and the student will receive 50% of 18). **Closed University days, Saturdays, Sundays and public holidays** will be included when counting the number of days late. An assignment late day begins from the time the assignment is due. Assignments received **more than 7 days after the due date** will not be accepted.
- (ii) Course Outlines provide a signal to students of forthcoming workload, dates of submission etc, and thus student study plans should take account of course requirements across all courses. Consequently, workload issues related to other courses and employment will not be accepted as reason for dispensation from mandatory requirements or waiver of penalties. **Extensions** to submission deadlines for any assigned work will only be granted in **exceptional circumstances**.

- (iii) Students who are unable to comply with any of the mandatory requirements should make a written application for an extension to the due date for submission of assigned work or for waiver of a penalty, **in advance**, to the **Undergraduate Programme Manager**, providing documentary evidence of the reasons of their circumstances.
- (iv) All such applications must be made **before** the deadline and be accompanied by documentary evidence, e.g. a medical certificate, or counsellor's report clearly stating the degree of impairment, and the dates the illness or event prevented you from undertaking your academic studies. This can be applied retrospectively.
- (v) In the event of unusual or unforeseeable circumstances (e.g. serious illness, family bereavement or other exceptional events), that precludes an application in advance, students should make contact with the **Undergraduate Programme Manager** as soon as possible, and make application for waiver of a penalty as soon as practicable.
- (vi) Word limits should be adhered to, especially so when they provide a guide to limiting the student's coverage of a topic and the intended assignment work load. You are strongly advised to adhere to the word limit so as to keep your workload at a manageable level. Any material that is above the word limit may not be taken into account by the marker. Your marker will simply stop at the maximum words for the assignment and you will receive the appropriate grade.

Remarking

Every attempt is made to ensure that the marking is consistent across tutors and fair to students.

Students may ask for their written work to be remarked.

Application for remarks must be made within 14 days after the assignments or marks are made available.

To apply for a remark, complete the request for re-examination of assessed work form (Annex B) stating which sections (criteria listed in the mark sheet) you wish re-examined. You must provide academic reasons on why you think the mark does not, in your view, fairly reflect the quality of your work. Your assignment will only be reconsidered on the points you raised. Complete remarks will not be undertaken. Hand this with your assignment into the following place:

- Pipitea Campus – the Reception Desk on Level 10 Rutherford House where your assignment will have the **time, date and signature** noted on the front cover by the person receiving it.

Allow a minimum of 5 days for remarks to be completed.

Use of Turnitin

Student work provided for assessment in this course may be checked for academic integrity by the electronic search engine <http://www.turnitin.com>. Turnitin is an on-line plagiarism prevention tool which compares submitted work with a very large database of existing material. At the discretion of the Head of School, handwritten work may be copy-typed by the School and submitted to Turnitin. A copy of submitted materials will be retained on behalf of the University for detection of future plagiarism, but access to the full text of submissions will not be made available to any other party.

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

Additional information, notices etc will be sent via Blackboard announcements. Please ensure your email address in Student records is up to date or you will miss out!

Course resources and materials will be added to Blackboard throughout the course, so please check there frequently.

Student feedback

Last time this course was taught, it was well received.

Student feedback on University courses may be found at

www.cad.vuw.ac.nz/feedback/feedback_display.php

Link to general information

For general information about course-related matters, go to

<http://www.victoria.ac.nz/vbs/studenthelp/general-course-information>

Here you will find links to information and resources relating to academic coursework and general student support, along with University statutes and policies.

You are expected to be familiar with and abide by policies, in particular: academic integrity and avoiding plagiarism.

Support resources include:

- Links to all the information you need to manage your programme of study
- Student services and support: all services are run by friendly and experienced people who will provide you with information and guidance, and most are available free of charge if you have a current Student ID card
- Te Pūtahi Atawhai: offers an academic mentoring programme that pairs Māori and Pasifika students with a student mentor who has achieved good grades

Policies and statutes

- Find key dates, explanations of grades and other useful information
- Find out about academic progress and restricted enrolment
- The University's statutes and policies
- Qualification statutes are available via the Calendar webpage (see section C)
- AVC (Academic) Website: information including: Conduct, Academic Grievances, Students with Impairments, Student Support

Quality improvement processes

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.



School of Management

MGMT 316

Assignment Cover Sheet

Name: _____ Student ID: _____

Tutorial /Workshop Number: _____

Tutorial Day: _____

Tutorial Time: _____

Date Due: _____

Date Submitted: _____

*I have read and understood the university policy on Academic Integrity and Plagiarism.
I declare this assignment is free from plagiarism.*

Signed: _____

Extension of the due date (*if applicable*)

Please attach a copy of the note authorising your extension.

Date extension applied for _____/_____/_____

Extension granted until: _____/_____/_____

Extension granted by: _____



School of Management

MGMT 316

Request for re-examination of assessed work

	Assessment affected <i>e.g. Team Report, Individual Assignment</i>	
Student ID	Name (As it appears in your enrolment)	Tutorial No/Tutor's name
Contact Details	<i>Phone</i> _____ <i>Email</i> _____	

Specify which section (criteria specified in the mark sheet) you wish to be re-examined

Note: requests to re-examine "all" criteria will not be considered.

Clearly state why you believe each of these sections should be re-examined:

Note: "I think it is worth more," is insufficient.

Signature _____

Date ____/____/____

Course Schedule, Tri 2 2016: MGMT 316 “Decision Modelling for Managers”

Week no.	Week start	Topic	Readings	Thursday Lecture	Tutorial & Comp Lab Tues/Weds	Assignment Due
1	11 Jul	Course Overview	EBA Ch 1, 10	Modelling & the decision making process Class organisation - Tutorials/labs Spreadsheet modelling	—	
2	18 Jul	Data analysis	EBA Ch 2, App A	Making sense of data Management applications	1. Working with spreadsheets	
3	25 Jul	Modelling decisions under uncertainty	EBA Ch 15	Decision analysis: using Decision tables and decision trees	2. Making sense of data	
4	1 Aug				3. Decision tables	
5	8 Aug	Modelling decisions with constraints	EBA Ch 11	Resource allocation: using linear programming (LP), graphical solution methods, and TOC’s product mix heuristic Allocation and blending problems	4. Decision trees	
6	15 Aug				5. Resource allocation	Thursday 18 August, 4pm
Mid-trimester break						
7	5 Sep	Planning and forecasting	EBA Ch 7, 8	Planning and forecasting using regression and time series analysis	6. Blending problems	
8	12 Sep				7 Forecasting	
9	19 Sep				8 Forecasting	
10	26 Sep	Modelling Variability via simulation models	QAM Ch13 EBA Ch 14	Using simple simulation models to aid decisions involving unpredictability, variability and random events	9. Forecasting	
11	3 Oct	Managing the Impacts of Variability		Managing variability in operations: lines, supply chains, projects	10. Simulation models	Forecasting Assignment Due Thursday 6 October 4pm
12	10 Oct	Course Review	EBA ch 1,	Course review and future directions		

Chapter references are to:

EBA: Essentials of Business Analytics, Camm, Cochran et al;

QAM: Quantitative Analysis for Management, Render, Stair, et al.

Other readings and resources will be distributed in class or via Blackboard.