

School of Management

## MGMT 316 DECISION MODELLING FOR MANAGERS

Trimester 2, 2015

### COURSE OUTLINE

---

#### Names and Contact Details

##### **COURSE COORDINATOR**

##### **Professor Vicky Mabin**

Room: RH 920, Rutherford House

Phone: 463 5140

Email: [vicky.mabin@vuw.ac.nz](mailto:vicky.mabin@vuw.ac.nz)

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

##### **ADMINISTRATOR**

##### **Misa Ito**

Room: RH 1022

Phone: 463-5397

Email: [Misa.Ito@vuw.ac.nz](mailto:Misa.Ito@vuw.ac.nz)

##### **UNDERGRADUATE PROGRAMME MANAGER**

##### **Garry Tansley**

Room: RH 915

Phone: 463-6968

Email: [Garry.Tansley@vuw.ac.nz](mailto:Garry.Tansley@vuw.ac.nz)

##### **MANAGEMENT GAME ADMINISTRATOR**

##### **Dr Philip Best**

Email: [Philip.Best@vuw.ac.nz](mailto:Philip.Best@vuw.ac.nz)

#### Trimester Dates

Teaching Period: Monday 13<sup>th</sup> July – Friday 16<sup>th</sup> October

Study Period: Monday 19<sup>th</sup> October – Thursday 22<sup>nd</sup> October

Examination Period: Friday 23<sup>rd</sup> October – Saturday 14<sup>th</sup> November (inclusive)

#### Class Times and Room Numbers

---

**Class: Weekly on Wednesdays from 09:30 - 11:20 in Rutherford House RHLT3**

**Tutorial/lab:** (TWO hours) each week except weeks 1 and 7 – times/locations shown below.

**Management Game:** Between 5.30pm and 9 pm Monday evening 14 September in week 8 in AM102/104.

#### **Class Times      Lectures:**

Room:            RH LT3

Day:             Wednesdays

Time:            09:30 – 11:20

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

T1/W1: Wednesday 3:30 – 5:30    GBG02/RWW 102

T2/W2: Thursday 11:30 – 1:30    RWW130/RWW102

T3/W3: Thursday 2:30 – 4:30    RWW130/RWW102

**Tutorial signup** is through the online programme **MyAllocator**. In the event of a clash, contact Garry Tansley [garry.tansley@vuw.ac.nz](mailto:garry.tansley@vuw.ac.nz).

### **Withdrawal from Course**

1. Your fees will be refunded if you withdraw from this course on or before Friday 24<sup>th</sup> July 2015.
2. The standard last date for withdrawal from this course is Friday 25<sup>th</sup> September 2015. 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' form 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. A management game is a central part of the course to simulate a real-life management activity, and topics will be woven around the game. This way, the game will provide a context within which to illustrate ways of dealing with the different aspects and questions that need to be addressed.

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.

Preparation and planning for the Management Game will commence in Week 2, and the actual game will occur between 5.30pm and 9 pm on Monday Sept 14, in Room AM 102/104. Attendance at the Management game in Week 8 is COMPULSORY – see mandatory course requirements.

### **Group Work**

While the course has a tradition of study group collaboration, 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.** You will be expected and encouraged to work in groups on in-term cases and assignments; however reports must be individual submissions.

The management game is run in teams composed of students from within the same tutorial group. Teams will take turns acting as either managers or workers in successive iterations of the game. Therefore there is teamwork involved in preparing for the game, acting in the game and debriefing/reporting afterwards. In addition, an individual assignment/report will be based around the use of the modelling approaches, using the game as the context. Students should allow approximately 2.5 hours per week in weeks 2 to 9 for group activities.

### **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 8 weeks = 16

Management Game: Preparation and wrap up = 2.5 hours x 8 weeks = 20

COMPULSORY ATTENDANCE at game on date, time, & place specified = 3

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

Assignment completion = 30

Exam preparation = 33

**Total = 150 hours**

## 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

<b>Objective</b>	<b>By the end of this course, students should be able to:</b>	<b>Addressed via</b>
<b>CLO 1</b>	Interpret major frameworks, approaches, concepts and conceptual vocabulary relevant to decision modelling for managers;	Assignment 1 & 2, Tutorials and Exam
<b>CLO2</b>	Critically analyse different frameworks and modelling approaches and use them to enhance decision making capabilities;	Assignment 1 & 2, Tutorials, Management Game, and Exam
<b>CLO 3</b>	Identify key elements of managerial decision situations, and develop robust solutions through decision modelling;	Assignment 1 & 2, Lectures, Management Game, Tutorials and Exam
<b>CLO 4a</b>	Recognise and demonstrate the importance of ... critical analysis and critical assessment of decision models and the outcomes of decision modelling;	Management Game, Assignments 1 & 2, Lectures, Tutorials and Exam
<b>CLO 4b</b>	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, Tutorials, Management Game
<b>CLO 4c</b>	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, Tutorials and Exam
<b>CLO 5</b>	Recognise ethical and social responsibility issues related to decision and policy modelling.	Lectures, Management Game, Tutorials and Exam

## Course Content

A provisional course schedule is provided at the end. Details for weeks 9-11 will be confirmed nearer the time.

## Readings

Readings and resources will be provided on Blackboard.

## Textbook

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

**Powell SG & Baker KR** (2007). *Management Science: The Art of Modeling with Spreadsheets*. 2<sup>nd</sup> 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.

## 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 calculator, but this must have the memory cleared before the start of the exam.

## 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 modelling assignment	25	2pm 9 September 2015
2	Management Game report - group	15	2pm 30 September 2015
3	Tutorial & Workshop Activities Participation	10	Weeks 2 to 6 and 9 to 11.
4	Final Examination	50	23 Oct to 14 Nov 2015
	<b>TOTAL</b>	<b>100</b>	

### **1. Assignment 1: Decision Modelling Individual report 25% - due 2pm Wednesday 9 September**

This assignment will be based on the material covered in lectures, tutorials and labs and your own application of decision modelling approaches (from tutorials and labs) to a selection of business decisions, including those involving the management game.

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**. This assignment must be written as a management report, with a maximum of 2,500 words not including appendices.

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. Assignment 2: Management Game - Team report 15% - due 2pm Wednesday 30 September**

This will include your team's planned and actual budget (financial performance) together with commentary on your decisions, rationale and reflections. There will be a **mid-way (Week 4) hand-in** where you will get feedback. All team members will need to contribute to the group report and sign a cover sheet acknowledging the work is original and that a significant contribution has been made by each team member, in planning, running and reporting on the game experience.

To assist you with making your groupwork experience as enjoyable and productive as possible, please access the VBS's Group work resources, available at

<http://www.victoria.ac.nz/vbs/teaching/group-work>

### **3. 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 6 of the 8 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 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:

<b>Preparation, Participation and Contributions</b>	<b>Mark range</b>
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

### **4. 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 Wednesday, October 14th 2015.

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.

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 **MGMT 316 box no. 25** on the mezzanine floor of Rutherford House by the due time on the due date. 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. A different tutor will do the remarking and provide comments.

For marks: If the mark differs by 10% or less the two marks are averaged. If it exceeds 10% then it is independently marked by a third marker and the average of the two closest marks is taken.

For grades: If the grade differs by one grade then the highest grade is taken. If the grade differs by more than one grade then the assignment is marked by a third marker and the average grade is taken. Experience from previous years is that almost all remarks are within 10% or one grade. Occasionally there is a significant shift in the mark or grade. 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.

### **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 23<sup>rd</sup> October – Saturday 14<sup>th</sup> November (inclusive)

### **Mandatory Course Requirements (MCR)**

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

1. Attend the Management Game to be held on Monday 14 September between 5.30pm and 9pm.
2. Attend at least 6 of the 8 provided tutorial/lab (2 hour) sessions.

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](http://www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat)

### **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 very well received. The Management Game has been added in response to a general student request for hands-on real life practical learning modes in the undergraduate programme. Last time the management game was run, it was very popular with students. This is the first time it is being offered in this course. I hope you find it makes our learning experience more relevant, fun and memorable.

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)

### **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**

**Team Report Cover Sheet**

*We have read and understood the university policy on Academic Integrity and Plagiarism. Our signatures below confirm that this assignment is free from plagiarism.*

*Team / Business Name:* \_\_\_\_\_

*Name:* \_\_\_\_\_ *Student ID:* \_\_\_\_\_ *Signature:* \_\_\_\_\_

*Name:* \_\_\_\_\_ *Student ID:* \_\_\_\_\_ *Signature:* \_\_\_\_\_

*Name:* \_\_\_\_\_ *Student ID:* \_\_\_\_\_ *Signature:* \_\_\_\_\_

*Name:* \_\_\_\_\_ *Student ID:* \_\_\_\_\_ *Signature:* \_\_\_\_\_

*Name:* \_\_\_\_\_ *Student ID:* \_\_\_\_\_ *Signature:* \_\_\_\_\_

*Name:* \_\_\_\_\_ *Student ID:* \_\_\_\_\_ *Signature:* \_\_\_\_\_

*Name:* \_\_\_\_\_ *Student ID:* \_\_\_\_\_ *Signature:* \_\_\_\_\_

*Name:* \_\_\_\_\_ *Student ID:* \_\_\_\_\_ *Signature:* \_\_\_\_\_

*Name:* \_\_\_\_\_ *Student ID:* \_\_\_\_\_ *Signature:* \_\_\_\_\_

*Name:* \_\_\_\_\_ *Student ID:* \_\_\_\_\_ *Signature:* \_\_\_\_\_

**Date Due:** \_\_\_\_\_

**Date Submitted:** \_\_\_\_\_

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**  
**Individual Assignment Cover Sheet**

Name: \_\_\_\_\_ Student ID: \_\_\_\_\_

Tutor's Name: \_\_\_\_\_

Tutorial 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**

	<b>Assessment affected</b> <i>e.g. Team Report, Individual Assignment</i>	
<b>Student ID</b>	<b>Name (As it appears in your enrolment)</b>	<b>Tutorial No/Tutor's name</b>
<b>Contact Details</b>	<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: MGMT 316 “Decision Modelling for Managers” 2015

Week no.	Week start	Topic	Readings (1), (2)	Lecture	Tutorial & Comp Lab	Assignment Due
1	13 Jul	<b>Course Overview</b>	Ch 1 & 2	Modelling & the decision making process Intro to the management game Class organisation - Tutorials/labs	—	
2	20 Jul	<b>Spreadsheet modelling</b>	Ch 3, 4, 5 & 6	Spreadsheet modelling Management applications Making sense of data	1. Spreadsheet modelling	
3	27 Jul	<b>Managing constraints – resource allocation modelling</b>	Ch 8	Goals and constraints Resource allocation: Optimisation solutions with linear programming (LP), Graphical solution methods, and product mix heuristic	2. Resource allocation	
4	3 Aug			Optimisation cont'd	3. Resource allocation cont'd	<b>Preliminary Budget hand-in - location to be advised</b>
5	10 Aug	<b>Managing constraints – Impacts of Variability</b>	Ch 9	Managing operations, lines, Variability, Constraint management	4. Dice game	
6	17 Aug	<b>Modelling Variability via simulation models</b>		Using simple models to aid decisions involving unpredictability, variability and random events Dice game, barber’s shop, Dr’s surgery, coffee shops, call centres etc	5. Simulation models	
<b>Mid-trimester break</b>						
7	7 Sep	<b>Mgmt Game</b>		Final preparations for ActionPak management game <b>Final Budget hand-in in class</b>		<b>Assignment 1 due Wednesday 9 September</b>
8	14 Sep	<b>Putting it all together (part 1) Modelling issues</b>		Simulation cont'd Other decision modelling issues		Action Pak simulation <b>Monday Evening 14 Sept</b>
9	21 Sep	<b>Planning and forecasting (tbc)</b>		Planning and forecasting	6. Forecasting	
10	28 Sep				7 Forecasting	<b>Assignment 2 due Wednesday 30 September</b>
11	5 Oct				8 Forecasting	
12	12 Oct	<b>Course Review</b>		Model validation Big data – data analytics		

(1) Chapter references are to: Powell SG & Baker KR (2007). *Management Science: The Art of Modeling with Spreadsheets*. 2<sup>nd</sup> ed. Wiley, USA.

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