

School of Management

MGMT 206 SYSTEMS THINKING AND DECISION MAKING

Trimester 1, 2015

COURSE OUTLINE

Names and Contact Details

COURSE COORDINATOR

A/Prof Bob Cavana

Room: RH 904, Rutherford House

Phone: 463 5137

Email: Bob.Cavana@vuw.ac.nz

Office hours will vary, so please email for an appointment.

ACADEMIC STAFF

Bronwyn Howell

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Office hours will vary, so please email for an appointment.

UNDERGRADUATE PROGRAMME MANAGER ADMINISTRATOR

Garry Tansley

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Misa Ito

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Trimester Dates

Teaching Period: Monday 2nd March – Friday 5th June

Study Period: Monday 8th June – Thursday 11th June

Examination Period: Friday 12th June – Wednesday 1st July (inclusive)

Withdrawal from Course

1. Your fees will be refunded if you withdraw from this course on or before Friday 13th March 2015.
2. The standard last date for withdrawal from this course is Friday 15th May. 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 Times and Room Numbers

Class: Monday 9:30 – 11:20am Rutherford House LT1

Tutorials: 8 x 50 minute tutorials TBA.

Prescription

An examination of various approaches to understanding and improving managerial decision making, challenging students to think systemically about complex issues that confront managers when managing change, resources or processes, and in general, managing situations where events unfold over time.

Course Content

Often decisions are made in a fragmented way, without regard to the effects on other parts of the organisation and environment, resulting in impaired performance or unexpected outcomes. The course provides an introduction to a range of relevant systems-based concepts and frameworks to address this issue, and provides an understanding of how everyday situations can be better managed. A range of typical managerial issues are explored, showing how they can be approached differently using systems thinking and decision-making approaches, in such a way that organisational performance as a whole is improved.

The course will challenge you to think critically, creatively, and systemically, about typical issues that confront managers when managing change, managing resources, managing projects, and managing uncertainty and variability. You will learn new ways of communicating with others regarding such issues.

Course Learning Objectives

Objective	By the end of this course, students should be able to:	Addressed via
CLO1	Demonstrate an understanding of relevant systems thinking and problem-solving concepts and frameworks	Assignment 1 & 2, Tutorials and Exam
CLO2	Apply different systems thinking and problem-solving frameworks to describe and develop an understanding of problematic decision situations in a variety of managerial and organisational contexts	Assignment 1 & 2, Tutorials and Exam
CLO3	Demonstrate critical and creative thinking skills through selection and use of a range of systems thinking and problem solving frameworks to develop solutions to problematic situations	Assignment 1 & 2, Lectures, Tutorials and Exam
CLO4	Demonstrate communications skills using both written and diagrammatic representations to convey understanding developed through the use of systems thinking and problem-solving frameworks	Assignments 1 & 2, Tutorials and Exam
CLO5	Demonstrate an ability to work constructively in groups to develop systems thinking and problem solving skills	Assignment 1, Lectures and Tutorials
CLO 6	Develop an appreciation of issues and concepts relevant to managing in operational contexts	Assignment 1 & 2, Lectures, Tutorials and Exam

Expected Workload

A total of 150 hours of work is expected from students in this course. That consists of 28 hours of classes and tutorials, 8 hours per week outside classes during teaching weeks spent reading, studying, preparing for tutorials and writing assignments, and a further 26 hours preparing and revising during mid-trimester break and exam preparation.

Course Delivery

The course consists of 10 two-hour lectures, 8 tutorials, plus your own study time.

We expect you to attend all lectures and tutorials offered. Lectures will start in week 1, tutorials in week 2. Lectures are run weekly during term time except for the two Mondays which fall on public holidays: 27 April and 1 June. On these days, there is no class; guidance will be given for self-study.

We expect you to read the readings and resources provided, go over examples covered in lectures, and try applying the methods yourself before coming to tutorial. You will need to provide a hand-in of some sort

each time. This way, you will have had a chance to find out what YOUR sticking points are and get the help you need from your tutor.

Group Work

The first assignment is a group project. You are expected to work in groups of 3 to 5 students on this assignment, which means more than using a stapler to combine your individual efforts! You will need to divide the work evenly and also work together as a group. Your diagrams should be discussed and agreed on by the group preferably in person, though you can obviously choose one person to make it presentable. To ensure logical connections between the parts of the assignment will require that you work together on the various parts: don't just assign different sections to individuals to do independently.

Resources are available at <http://www.victoria.ac.nz/vbs/teaching/group-work> to support you in working in groups, to overcome the issues that often arise. We encourage you to make use of them, to improve your performance when working as a group – teamwork is a skill valued highly in the workplace.

While we encourage working together in groups, all other assessment items are strictly individual. Collaboration on **individual** assessment items should be limited to general discussion as to how one might interpret the nature of the assigned question, and testing out ideas with each other. You should not work together to formulate a common response. Do not loan out your completed individual assignments. Assignments showing evidence of such actions will be investigated for plagiarism.

Readings

Key texts for this course are:

- K. E. Maani and R. Y. Cavana, *Introduction to Systems Thinking*, 2010, Pearson NZ.

Other readings and resources will be provided during the course via Blackboard.

*For students planning to advance onto MGMT 315 'Systems Thinking and Modelling' in 2016, we recommend that, instead of *Introduction to Systems Thinking*, you purchase a copy of: Maani, K. E., & Cavana, R.Y. (2007). *Systems Thinking, Systems Dynamics: Managing Change and Complexity*. Auckland: Pearson Education (NZ) Ltd.

Materials and Equipment

PowerPoint slides and other lecture materials will be available on Blackboard, but these are not sufficient to pass the course. You need to come to class to annotate the slides and make your own notes. Bring pens and paper to all sessions, as there will be practical in-class exercises to help you understand the concepts covered, linking theory and practice.

Additional readings, resource material, and links to resources will also be made available via Blackboard.

Electronic devices including computers or electronic calculators will not be permitted in the examination.

Assessment

The Assessment Handbook will apply to all VUW courses: see

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

The assessment for this course comprises two Systems Thinking/Decision Making assignments, the first assignment is a group assignment, focussing on applying Causal Loop Diagram representations (CLDs) and Systems Archetypes; the second is an individual assignment, focussing on decision making under uncertainty.

It also includes the preparation and participation at tutorials, and a final examination.

Each piece of assessment involves a combination of the Course Learning Objectives as detailed below.

1 Tutorial Preparation and Participation

10 marks

Participation in tutorials is crucial to the learning process on this course. This is a participation mark, not an attendance mark. The grade will depend on the student's preparation for, and then the extent and quality of the contribution to tutorial class exercises and discussions. Students will be expected to provide a one-page summary of their work to their tutor at the start of the tutorial, or bring along their completed workbook when asked to. You will also be expected to present an example to the group. To maximise your tutorial marks, you must attend at least five (5) of the tutorials offered. The tutorials are held as shown in the schedule. Your tutorial mark will be based on your best 5 marks. Attending fewer than 5 tutorials will reduce your tutorial mark accordingly.

You will be assessed on your ability to develop your systems thinking competencies through preparation for and participation in tutorials. The demonstrated quality of your **written preparation** and participation for your best five (5) tutorials will guide the outcome of your preparation and participation marks. The assessment of preparation and participation will be based on the following scale:

Preparation and Participation	Mark range
No or minimal preparation and participation	0-2
Limited preparation and/or limited participation, showing little understanding and interest in the topic	3-4
Provides examples, ideas, participates in activities, showing interest and moderate understanding	5-6
Evidence of well worked examples and critical thinking, shows a lot of interest, participates actively	7-8
Excellent worked examples, links theory and practice, works well with others, helps others to 'see' the situation and ways of improving	9-10

Tutorial activities contribute to all Course Learning Objectives.

2 Term Work: Assignments

There will be **two (2) Assignments** – Reports – **totalling 40 marks**

Assignment 1 (Group Assignment): Systems Thinking Assignment **15 marks**

Due Thursday, 2 April 2015, at 12 Noon, in Box 22, Mezzanine Floor, Rutherford House.

Assignment 2 (individual Assignment): Decision Making Under Uncertainty **25 marks**

Due Friday, 29 May 2015, at 12 Noon, in Box 22, Mezzanine Floor, Rutherford House.

For the group Assignment 1 you will be asked to present a report setting out your description of a problematic situation using systems diagrams and narrative, showing how the systems representation may lead to appropriate intervention. The assignment requires demonstration of insight developed from the use of systems thinking, and the benefits of using a systems approach.

In the individual Assignment 2 will ask you to use a combination of decision trees, tables and narrative to describe approaches to making decisions in the face of a range of uncertainties. The assignment requires demonstration of skills and insights developed from the use of structural and game theory tools to inform decision making where uncertainty exists.

Assignment 1 will be around 2500 words max and Assignment 2 around 10 pages maximum. Full instructions and marking guidelines for Assignments 1 and 2 will be made available on Blackboard. The Assignments contribute to all Course Learning Objectives.

3 Examination

50 marks

The exam is worth 50% of the marks available for this course. The exam will be closed book and 3 hours in duration. As a mandatory course requirement, students are required to obtain at least 40 per cent (i.e. 20 marks out of 50) of the final examination marks available.

Preparation for the Examination contributes to Course Learning Objectives 1, 2, 3, 4 and 6.

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 12th June – Wednesday 1st July (inclusive)

Mandatory Course Requirements

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

- a. Submit both assignments in hard copy within the allowable timeframes (see under **Penalties and General University Policies and Statutes** below); and
- b. Obtain at least 40 per cent (i.e. 20 marks out of 50) of the final examination marks available.

Note: Failure to meet mandatory requirements does not prevent a student completing other pieces of assessment, including sitting the final examination.

If you cannot complete an assignment or sit a test or examination, refer to

www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat

Handing in assignments:

Assignments should be handed in **by the due date in Box 22, Mezzanine Floor, Rutherford House, as specified above and on the assignment brief**. Assignments received after the due date will be deemed to be late.

All completed assignments must have a cover sheet. The cover sheets are provided in Annex A and Annex 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 – 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 and the student will **automatically fail the Mandatory Course Requirements**.
- (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.
- (iv) 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.
- (v) 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 C) 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.

Tutorial Signup

Tutorial signup is done through the online programme; 'S-Cube'.

You should already have been notified by email about how to sign-up to a tutorial using this system.

Go to the signup website at: <https://signups.victoria.ac.nz> and enter your SCS username and password to log into the system. Click on MGMT206 and follow the instructions.

If you have been unable to sign up by the end of the first week of the course please contact the Undergraduate Programme Manager, Garry Tansley.

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 or information on changes will be conveyed to students, in class, and via Blackboard, and when appropriate via an email to all class members using your student email addresses. You must ensure that your email address is up-to-date and that you check Blackboard regularly (eg at least once per week).

Student feedback

Student feedback on University courses may be found at www.cad.vuw.ac.nz/feedback/feedback_display.php This feedback is considered carefully, and changes made where appropriate.

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 BCom learning goals and 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.

COURSE SCHEDULE – MGMT 206, Systems Thinking & Decision Making 2015

<i>Week</i>	<i>Date</i>	<i>Lecturer</i> *	<i>Topic</i>	<i>Tutorials</i>	<i>Assignments</i>
1	2 Mar	BC	Intro to course Intro to Systems Thinking	-	
2	9 Mar	BC	Problem Structuring	<i>Tutorial 1</i> Problem structuring Establishing groups	
3	16 Mar	BC	Causal Loop Modelling	<i>Tutorial 2</i> Developing causal loop diagrams	
4	23 Mar	BC	Systems Archetypes	<i>Tutorial 3</i> Analysing causal loop diagrams	
5	30 Mar	BC	Other systems approaches	-	Assignment 1 (group): due Thursday 2 April, noon
			<i>Mid-Trimester Break</i>		
6	20 Apr	BH	Information, Risk and Uncertainty	-	
7	27 Apr	-	No class	<i>Tutorial 4</i> Risk and risk aversion	
8	4 May	BH	One-person (unilateral) decisions	<i>Tutorial 5</i> Decision tree exercises	
9	11 May	BH	Interactive (strategic) and collaborative decision-making	<i>Tutorial 6</i> Prisoners' Dilemma	
10	18 May	BH	Managing Projects	<i>Tutorial 7</i> Critical Path for managing projects	
11	25 May	BC / BH	Course Review and Integration		Assignment 2 (individual): due Friday 29 May, noon
12	1 June	-	No class	<i>Tutorial 8</i> Revision exercises	
June 12 – July 1			Exam period		Exam

* Key to Lecturers: BC = Bob Cavana, BH = Bronwyn Howell



School of Management

MGMT 206

Assignment 1: Group Cover Sheet

Name(s): _____ Student ID: _____ (1)

Name(s): _____ Student ID: _____ (2)

Name(s): _____ Student ID: _____ (3)

Name(s): _____ Student ID: _____ (4)

Name(s): _____ Student ID: _____ (5)

Tutor's Name: _____

Tutorial Number: _____

Tutorial Day: _____

Tutorial Time: _____

Date Due: _____

Date Submitted: _____

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

(1) _____ (2) _____

(3) _____ (4) _____

(5) _____

Please attach a copy of the note authorising your extension.

Date extension applied for _____

Extension granted until: _____

Extension granted by: _____



School of Management

MGMT 206
Assignment 2 Cover Sheet

Name(s): _____ Student ID: _____

Tutor's Name: _____

Tutorial Number: _____

Tutorial Day: _____

Tutorial Time: _____

Date Due: _____

Date Submitted: _____

I/We 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 206

Request for re-examination of assessed work

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

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

Note: requests to re-examine "all" sections 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