



Victoria Management School

**MGMT 206 SYSTEMS THINKING & DECISION MAKING**

Trimester 1 2005

**COURSE OUTLINE**

**CONTACT DETAILS**

**TEACHING STAFF**

**Associate Professor John Davies  
Course Coordinator**

Room: RH 1018, Rutherford House  
Phone: 463 5382  
Fax: 463 5084  
Email: [john.davies@vuw.ac.nz](mailto:john.davies@vuw.ac.nz)  
Website: [www.vuw.ac.nz/vms](http://www.vuw.ac.nz/vms)

**Associate Professor Vicky Mabin**

Room: RH 911, Rutherford House  
Phone: 463 5140  
Fax: 463 5253  
Email: [Vicky.Mabin@vuw.ac.nz](mailto:Vicky.Mabin@vuw.ac.nz)

**Dr Arun Elias**

Room: RH 931, Rutherford House  
Phone: 463 5736  
Email: [arun.elias@vuw.ac.nz](mailto:arun.elias@vuw.ac.nz)

**ADMINISTRATION ASSISTANT**

**Patricia Lapham**

Room: RH 919, Rutherford House  
Phone: 463 5381  
Email: [patricia.lapham@vuw.ac.nz](mailto:patricia.lapham@vuw.ac.nz)

**TUTORIAL COORDINATOR/COURSE ADMINISTRATOR**

**Deborah Kelly**

Room: RH 120  
Phone: 463-6968  
Email: [deborah.kelly@vuw.ac.nz](mailto:deborah.kelly@vuw.ac.nz)

**INTRODUCTION**

The course lecturers welcome you to this fourth offering of Systems Thinking and Decision Making to be presented by the Victoria Management School. The intent has been to design a course which provides an appropriate introduction to the broad field of systems approaches to describing and understanding organizations, organizational settings and problematic situations in organizations. In doing so, the course will adopt a multiple perspective approach to the framing and solution of managerial problems, and will provide students with an introduction to a range of relevant concepts and frameworks that will allow for the development of a better understanding of problem solving and decision-making processes. As such, the course will offer insights about typical decision making behaviour and how that behaviour can be improved through an empathy with systems notions; and through the employment of systemic approaches. In particular, the course will challenge students to think systemically about issues that confront managers in the fields of managing change, managing resources, managing projects, and in general, managing in situations where uncertainty unfolds over time. Attendance at all classes is an implicit expectation of course participation.

## OBJECTIVES

The course therefore has several objectives, which include:

- understanding the nature of systems, systems thinking and systemic reasoning
- understanding the systemic nature of problems facing managers in organizational settings
- examining the nature of systems approaches
  - to describing and understanding organizations, and organizational and managerial problem situations
  - to managerial problem situation solving and decision making
- understanding the variety of ways in which decisions are and can be made
- improving competence in structuring problems
- exploring ways of approaching a range of typical managerial problems and tasks ...
  - ... in different functional areas of management, at strategic and operational levels
- developing an ability to devise robust strategies and make balanced decisions
  - comprehending the complex interaction of systemic forces acting on organisations

### General Learning Objectives

On successful completion of the course, you should be able to:

- demonstrate an understanding of major systems frameworks, concepts and conceptual vocabulary ...
  - ... under-pinning successful problem-solving and decision analysis
  - ... relevant to management
- use such frameworks to describe and develop an understanding of managerial decision situations
- demonstrate an ability to critically analyse and work with different systems frameworks for examining managerial issues.

## COMMUNICATION

As you will learn from MGMT papers, good communication is crucial to the success of any organisation, especially classes. Communication in this course will be conducted in face-to-face mode in the lectures, workshops and tutorials as well in on-line mode through the **Blackboard** system.

With respect to individual student questions and concerns, given the large number of students involved in this course, it would be greatly appreciated if students could observe the following etiquette. Individual questions and concerns can be addressed in tutorial sessions or by contacting your tutor. Please do not hesitate to raise an issue, as it may be a common student concern. Tutors will either respond immediately, or seek clarification and then respond. If concerns remain, then the course co-ordinator should be contacted.

### NOTICES - Communication of Additional Information

Information on course-related matters will be announced at class and posted on the **Blackboard** website at <http://blackboard.vuw.ac.nz/>. It will be crucial for you to regularly check Blackboard for messages, announcements and materials.

## TEXTBOOK

*The Goal*, EM Goldratt, 2<sup>nd</sup> Revised Edition, 1992; available for purchase at class during the first two weeks of term at the special price of \$25, and at other times to be advised.

## ADDITIONAL READINGS

A selection of additional readings will be made available to students and will be distributed at class initially. They may also be collected from RH Room 919 at times to be notified, on evidence of enrolment and identity. Weekly readings are listed in the course schedule - pages 6&7 of this outline.

Students are expected to familiarise themselves with the set of suggested readings, and where directed, to have prepared topics in advance of classes/tutorials, being ready to discuss the issues which the readings present.

## CLASS TIMES and ROOM NUMBERS

### TIMETABLE - Lectures

Class sessions will be held in **RH LT 1**  
on **TUESDAYS** ... between **1440-1630** hours  
with **Class Workshops** in **RH LT 1**  
on **FRIDAYS** ... between **1440-1530** hours

They will comprise formal lectures supplemented by case discussion, student presentations and practical exercises. See schedule overleaf for week-by-week plan of sessions.

### TIMETABLE - Tutorials

Tutorial sessions will be held on Mondays, Tuesdays and Fridays on the Pipitea campus in the Railway Station Tutorial Rooms.

Tutorial sessions will start in Week 2.

Tutorial sessions will be held on:

Tutorial Day	Time	Place
Monday	2:40 – 3:30pm	RLWY 220
Monday	3:40 – 4:30pm	RLWY 221
Tuesday	11:30 – 12:20pm	RLWY 126
Tuesday	12:40 – 1:30pm	RLWY 126
Tuesday	12:40 – 1:30pm	RLWY 127
Tuesday	1:40 – 2:30pm	RLWY 220
Tuesday	1:40 – 2:30pm	RLWY 222
Tuesday	1:40 – 2:30pm	RLWY 223
Tuesday	4:40 – 5:30pm	RLWY 126
Tuesday	4:40 – 5:30pm	RLWY 220
Friday	10:30 – 11:20am	RLWY 220
Friday	10:30 – 11:20am	RLWY 221
Friday	11:30 – 12:20pm	RLWY 221
Friday	11:30 – 12:20pm	RLWY 222
Friday	12:40 – 1:30pm	RLWY 126
Friday	1:40 – 2:30pm	RLWY 126
Friday	2:40 – 3:30pm	RLWY 221
Friday	2:40 – 3:30pm	RLWY 222
Friday	3:40 – 4:30pm	RLWY 128
Friday	3:40 – 4:30pm	RLWY 222

### Tutorial Allocation and Sign up Procedure

Sign up for tutorials will be done electronically through the Blackboard system. Please ensure that you have access to Blackboard once you have registered for the course.

There is a maximum of 15 students per tutorial class, so that if a tutorial time-slot is oversubscribed, students will need to move to their next preference.

Confirmation of tutorial groups will be posted on Blackboard and at class on *Friday February 25<sup>th</sup> 2005*. If you have any serious problems about the allocations please contact the tutorial coordinator.

Please see next page for full details.

## TUTORIAL SIGN UP

Tutorial sign-up will take place on Blackboard and will begin at **4:30pm on Tuesday 22<sup>nd</sup> February** (*requests cannot be taken by phone or e-mail*).

Please ensure that you have access to Blackboard once you have registered for the course.

Tutorials are scheduled for Mondays, Tuesdays and Fridays. The times and rooms for tutorials will also be available on Blackboard.

### How to Sign Up for a Tutorial

To sign up for your MGMT 206 tutorial you need to follow the instructions below:

1. Log onto Blackboard by going to [www.blackboard.vuw.ac.nz](http://www.blackboard.vuw.ac.nz) and clicking the 'login' button. Insert your user name (i.e. your SCS user name) and password.
2. Once you are logged on, select the '**Courses**' button, and click on **MGMT 206**.
3. Select the '**Discussion Board**' button on the left hand side of the screen.
4. Click on '**Tutorial Sign Up**', which will open a list of tutorial times. Click on the tutorial time of your choice.
5. To register your name for this tutorial:  
click on the '**Reply**' button at the bottom of the page  
place an 'x' in the **message box**, which is below **subject**, and  
click on '**submit**' at the bottom of the page.

You have now registered for this tutorial. Your name should appear under the tutorial of your choice.

**Please remember that only 15 students per tutorial are accepted.** It is your responsibility to count the number of names under the tutorial to ensure there are no more than 14 *before* you add your name.

If you would like to check if you have signed up for a tutorial correctly, or that you have not been removed, you can search by clicking on **search** in the top right hand corner and then select your name from the list of authors, then click **submit**. This will then show a list of all your entries on the discussion board.

6. If you need to change your tutorial group, please remove your name from the initial tutorial you signed up for.  
To do this, follow steps 1-3, then select '**Tutorial Sign Up**' and double click on the tutorial time beside your name. Click the '**remove**' button, followed by **OK**. You can now choose a different tutorial time by following steps 4 and 5.

There is a maximum of 15 students per tutorial class and spaces are allocated on a "first come, first served" basis so book your place quickly. Confirmation of your tutorial group will be posted on the MGMT 206 Blackboard site and on the Management Notice Board on the mezzanine floor of Rutherford House by 2.40pm Friday 25<sup>th</sup> Feb.

## ASSESSMENT REQUIREMENTS

A student's overall grade in the course will be determined in the following manner:

### 1 Tutorial Work

- up to 15 marks

#### Tutorial Preparation and Participation

The grade will depend on the student's preparation for, and quality of the contribution to, tutorial class discussions. Students will be expected to provide a two-page summary of their work to their tutor at the start of the tutorial. The two-page hand-in will contribute to evidence of preparation. Preferred referencing style is APA system.

#### For each tutorial:

Students will prepare a type-written, two-page, single spaced, 10 point Times font, word-processed tutorial assignment, to be handed to the tutor at the beginning of the tutorial (See attachment).

Students will prepare two copies of each hand-in and keep a second copy for their own reference and for use during the tutorial. Students must also keep an electronic copy of their work.

### 2 Terms Work – Assignments – to handed in at the lecture class

There will be **three (3) assignments, totalling**

- up to 45 marks

Assignment 1: due Tuesday, 8 March 2005	- at class - ST Case 1	up to 10 marks
Assignment 2: due Tuesday, 12 April 2005	- at class - ST Case 2	up to 10 marks
Assignment 3: due Tuesday, 17 May 2005	- at class - TOC Asst	up to 25 marks

Students will prepare two copies of each assignment and keep a second copy for their own reference and for use during the course. Students must also keep an electronic copy of their assignment.

### 3 Mandatory Course Requirements

- comprise:
  - i) submission of **EIGHT** tutorial **Hand-Ins** at the due times
  - ii) attendance for **at least 8 out of 9** tutorials requiring **Hand-Ins**
  - iii) obtaining **at least 40%** of the marks available to Tutorial Work, ie 6 marks
  - iv) submission of **all** assignments **by the due dates**
  - v) obtaining **at least 30%** of the marks available to **each** assignment
  - vi) obtaining **at least 40%** of the marks available to the Exam, ie 16 marks
- Students who fail to satisfy the mandatory requirements [ (i) to (v) ] for passing this course will not receive a graded result, and their records will show an ungraded fail "Q."
- Students who satisfy the mandatory requirements [ (i) to (v) ] for passing this course but who do not meet requirement (vi) will receive a graded fail – "D", "E" or "F."
- Attendance at all classes is an implicit expectation of course participation.

### 4 Overall Pass Mark - for the course will be 50% of the total marks available ie 50 marks

### 5 Open Book Exam

- up to 40 marks

Calculators may be used in the exam, but computers and communication devices are **not** permitted.

#### PENALTIES - for Lateness & Excessive Length of Assignments

In fairness to other students, work submitted after the deadline will incur a penalty for lateness. The penalty is 5% of the marks available per day late.

In the event of unusual or unforeseeable circumstances (e.g., serious illness, family bereavement), students should discuss waiver of the penalty with the tutorial coordinator/course administrator. Word limits should be adhered to, especially so when they provide a guide to limiting the student's coverage of a topic.

#### Workload

Students can expect the workload to be approximately 6-8 hours work outside class.

You may discuss work with other students; but reports must be individual submissions.

#### Email Contact

Students wishing to contact staff by email should adhere to the following instructions:

Include the **Course Code**, your **Name**, your **Student ID** and the **Topic** in the subject area of the email, eg  
MGMT206\_Smith\_Pauline\_3000223344\_Ass1 Query

All students must use their VUW SCS email account and ID. Otherwise, email will be classified as Spam and will be dumped without being read. All emails with attachments will be dumped, unless requested by staff.

**Part 1: Approaching Management Problems using Systems Thinking and Systems Frameworks - John Davies**

Week	Date	Topic	Lecture	Readings	Workshop	Tutorials	Assignments
1	22 Feb	<b>Introduction to course</b> – administration;	Course rationale, framework, overview; The Systems view, framing & being systemic; Individual and Organisational Behaviour: Decision Traps, Judgmental Flaws, Fixes that fail; Hard, Soft & Critical Systems Thinking; S Thinking & Management apps	Daellenbach Ch 2 Maani &Cavana Ch1 Hicks Ch 11 Senge Ch 1, 2	Cases - common experiences. Building Causal Loop Diagrams Student exercises.	No Tutorials	
2	1 Mar	<b>Systems Thinking, Systems Methodologies and Problem Solving:</b>  <b>Systems Methodologies as enquiry systems:</b>	The language of ST: events and patterns, building a conceptual vocabulary - Senge's Archetypes; causal loop and influence diagrams - mental models  An overview	D'bach Ch 2, 3 Maani &Cavana Ch2 Ackoff Sterman Ch 1 Senge Ch 6, 7, 8	Senge's Archetypes: Building & understanding Causal Loop Diagrams Cases	Systems and Systems Thinking Senge's Archetypes: Fixes that Fail Shifting the Burden etc plus Students' own cases. <b>Hand-In</b>	
3	8 Mar	<b>Understanding Organisations as and through Systems:</b>	Alternative views: Learning Systems Systemic features of the Learning Organisation	Ackoff Senge Ch 1, 6,7,8,10 Galagan	M'ging Change; Wine Case – Side-effects of investment	Cases: Kiwi Bank and Kiwi Fruit Senge's Learning Organisation <b>Hand-In</b>	<b>Assignment 1 due 16 March at class</b>
4	15 Mar	<b>Organisations as Systems - continued</b>	Managing Change as Systemic Intervention? Meeting Challenges, Overcoming Barriers & Harnessing Resistance	... as above	Cases: Limits to Growth Tourism Industrial Development	Dances of Change Cases Understanding the systemic requirements of overcoming resistance to change <b>Hand-In</b>	
5	22 Mar	<b>Organisations as Systems - continued</b>	Features of organizational design - systemic requirements	Brocklesby et al plus as above		Review Tutorial	
Mid-Trimester Break							

MGMT 206 2005 Part 2: Approaching Management Problems using **The Theory of Constraints Methodology** - Vicky Mabin

Week	Date	Topic	Lecture	Readings	Workshop	Tutorials	Assignments
6	12 Apr	<b>Managing Constraints: limiting factors, constrained resources</b>	Intro to TOC <i>The Goal</i> Video The 5FS Constraints	1 - 8	Expozay case story Rdg 8	The Goal – summarising the key points of the method and the principles underlying it <b>Hand-in:</b> Summary of key points of the Five Focusing Steps method and principles of TOC as gained from your reading of <i>The Goal</i>	<b>Assignment 2 due 12 April at class</b>
7	19 Apr	<b>Managing change: Diagnosing the Core Problem</b>	Constraints – different types Using Cause and Effect thinking for Diagnosis	9 - 12	Cause-Effect Diagrams Cox – The Goal	5FS and TOC – continued and Applying the 5FS <b>Hand-in:</b> Your own worked example of applying the 5FS	
8	26 Apr	<b>Managing Conflicts and Designing Solutions</b>	Resolving Conflict, dilemmas, tradeoffs using the Evaporating cloud method	13 – 15	PreRequisite Tree method and examples	Dice Game <b>Hand-in:</b> Your own simple Cause-Effect diagram	
9	3 May	<b>Managing Change: Developing Fundamental Solutions</b>	Using the Thinking Processes to develop fundamental solutions: Combining Necessary Condition Thinking and Cause-Effect Thinking	13 (ch 8), 16, 17	Case: Combining Necessary Condition and C-E Thinking	Evaporating Clouds <b>Hand-in:</b> Your own worked EC	
10	10 May	<b>Managing Projects and other Implementation Issues</b>	Action Planning Project Management TOC's Critical Chain approach	18, 19	Critical Chain Example	Negative Branch Method <b>Hand in:</b> Your own worked NBR	
11	17 May	<b>Review and Integration</b>	Buffer Management Review of TOC frames Multi-framing as an approach to addressing management problems		TOC revision	Action Planning using CC <b>Hand in:</b> worked example	<b>Assignment 3 due 17 May at class</b>
12	24 May	<b>Course Review</b>	Review and Integration of Systems Frameworks covered in course Exam Briefing		Revision clinic	Revision tutorials tba	



### General University Policies and Statutes

Students should familiarise themselves with the University's policies and statutes, particularly those regarding assessment and course of study requirements, and formal academic grievance procedures.

### Student Conduct and Staff Conduct

The Statute on Student Conduct together with the Policy on Staff Conduct ensure that members of the University community are able to work, learn, study and participate in the academic and social aspects of the University's life in an atmosphere of safety and respect. The Statute on Student Conduct contains information on what conduct is prohibited and what steps can be taken if there is a complaint. For queries about complaint procedures under the Statute on Student Conduct, contact the Facilitator and Disputes Advisor. This Statute is available in the Faculty Student Administration Office or on the website at: [www.vuw.ac.nz/policy/StudentConduct](http://www.vuw.ac.nz/policy/StudentConduct).

The policy on Staff Conduct can be found on the VUW website at: [www.vuw.ac.nz/policy/StaffConduct](http://www.vuw.ac.nz/policy/StaffConduct).

### Academic Grievances

If you have any academic problems with your course you should talk to the tutor or lecturer concerned or, if you are not satisfied with the result of that meeting, see the Head of School or the Associate Dean (Students) of your Faculty. Class representatives are available to assist you with this process. If, after trying the above channels, you are still unsatisfied, formal grievance procedures can be invoked. These are set out in the Academic Grievances Policy which is published on the VUW website:

[www.vuw.ac.nz/policy/AcademicGrievances](http://www.vuw.ac.nz/policy/AcademicGrievances).

### Academic Integrity and Plagiarism

Academic integrity is about honesty – put simply it means **no cheating**. All members of the University community are responsible for upholding academic integrity, which means staff and students are expected to behave honestly, fairly and with respect for others at all times.

Plagiarism is a form of cheating which undermines academic integrity. Plagiarism is **prohibited** at Victoria.

The University defines plagiarism as follows:

**Plagiarism is presenting someone else's work as if it were your own, whether you mean to or not.**

*'Someone else's work' means anything that is not your own idea, even if it is presented in your own style. It includes material from books, journals or any other printed source, the work of other students or staff, information from the Internet, software programmes and other electronic material, designs and ideas. It also includes the organization or structuring of any such material.*

### *Plagiarism is not worth the risk.*

Any enrolled student found guilty of plagiarism will be subject to disciplinary procedures under the Statute on Student Conduct ([www.vuw.ac.nz/policy/studentconduct](http://www.vuw.ac.nz/policy/studentconduct)) and may be penalized severely. Consequences of being found guilty of plagiarism can include:

- an oral or written warning
- suspension from class or university
- cancellation of your mark for an assessment or a fail grade for the course.

**Find out more about plagiarism and how to avoid it, on the University's website at:**

[www.vuw.ac.nz/home/studying/plagiarism.html](http://www.vuw.ac.nz/home/studying/plagiarism.html).

### Students with Disabilities

The University has a policy of reasonable accommodation of the needs of students with disabilities. The policy aims to give students with disabilities an equal opportunity with all other students to demonstrate their abilities. If you have a disability, impairment or chronic medical condition (temporary, permanent or recurring) that may impact on your ability to participate, learn and/or achieve in lectures and tutorials or in meeting the course requirements, then please contact the Course Coordinator as early in the course as possible. Alternatively you may wish to approach a Student Adviser from Disability Support Services to confidentially discuss your



individual needs and the options and support that are available. Disability Support Services are located on Level 1, Robert Stout Building, or phoning 463-6070, email: [disability@vuw.ac.nz](mailto:disability@vuw.ac.nz). The name of your School's Disability Liaison Person can be obtained from the Administrative Assistant or the School Prospectus.

### **Student Support**

Staff at Victoria want students' learning experiences at the University to be positive. If your academic progress is causing you concern, please contact the relevant Course Co-ordinator, or Associate Dean who will either help you directly or put you in contact with someone who can.

The Student Services Group is also available to provide a variety of support and services. Find out more at [www.vuw.ac.nz/st\\_services/](http://www.vuw.ac.nz/st_services/) or email [student-services@vuw.ac.nz](mailto:student-services@vuw.ac.nz).

VUWSA employs two Education Coordinators who deal with academic problems and provide support, advice and advocacy services, as well as organising class representatives and faculty delegates. The Education Office is located on the ground floor, Student Union Building, phone 463 6983 or 463 6984, email [education@vuwsa.org.nz](mailto:education@vuwsa.org.nz).

VICTORIA UNIVERSITY OF WELLINGTON  
*Te Whare Wānanga o te Ūpoko o te Ika a Māui*



Victoria Management School

**MGMT 206 SYSTEMS THINKING & DECISION  
MAKING**

Trimester 1 2005

**Assignment Cover Sheet**

Assignment No. \_\_\_\_

Topic: \_\_\_\_\_

Due at class Tuesday \_\_\_\_ \_\_ 2005

My Tutor is : \_\_\_\_\_

My Tutorial Day is: \_\_\_\_\_

My Tutorial Time is: \_\_\_\_\_

Name: \_\_\_\_\_

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

Course Lecturer: John Davies