



THE UNIVERSITY OF  
NEW SOUTH WALES

SCHOOL OF MATERIALS SCIENCE AND ENGINEERING

**MATS1244**

**MANAGEMENT IN  
MATERIALS INDUSTRY A**

Course Outline

Session 2, 2009

## Course Staff

Dr. Owen Standard Course Coordinator and Lecturer	Rm 216, MSE o.standard@unsw.edu.au
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Ms Jingyuan Meng Lecturer	Department of Economics Macquarie University, Sydney NSW 2109 jingyuan.meng@efs.mq.edu.au

Consultation is by appointment only.

## Guest Presenters

Eva Chan  
Senior Careers Consultant  
UNSW Careers and Employment

Alyssa Taylor  
Managing Director  
Taylor Ceramic Engineering

Samantha Abeydeera  
Student Development Officer  
The Association of Professional Engineers, Scientists & Managers, Australia (APESMA)

## Course Timetable\*

Wk	Thursday 3-5 pm (Webster 251)		Friday 11-1 pm (Webster 251)	
	Topic	Lecturer	Topic	Lecturer
1	Intro.& Marketing	OS/CS	Project Management	OS
2	Marketing	CS	Project Management	OS
3	–	–	Project Management	OS
4	Marketing	CS	Economics	JM
5	Marketing	CS	Economics	JM
6	Microskills of Management Communication	CS	Economics	JM
7	Goal Setting and Performance Appraisal	CS	Financial Accounting	JM
8	Reward Structures	CS	Management Accounting	JM
9	Managing a Small to Medium Enterprise	AT	Career Development – Cover Letter and Resume	EC
10	Legal Issues in Business & Management	CS	Career Development – Interview Process	EC
11	Legal Issues in Business & Management	CS	APESMA	SA
12	Managing a Large Business	TBA	Course Summary & Revision	OS

\* subject to change depending on availability of guest lecturers

### Course Information

Units of credit	6
Parallel teaching involved in this course	None
How the course relates to other course offerings and overall program(s) in the discipline	The course is directly linked to industrial experience requirements. Students are also expected to use their fundamental materials knowledge examples in lectures as in assignments.
Course aims	To provide students with a knowledge of the management issues they will face in the materials industry workplace
Graduate attributes which will be gained through the course	<ul style="list-style-type: none"> <li>• Research, inquiry and analytical thinking abilities.</li> <li>• Ethical, Social and Professional Understanding.</li> <li>• Communication.</li> <li>• Teamwork, collaborative and management skills.</li> </ul>
Expected learning outcomes	To develop a basic understanding of the following relevant to careers in the materials industry: <ul style="list-style-type: none"> <li>• Project Management</li> <li>• Accounting</li> <li>• Micro-economics</li> <li>• Marketing</li> <li>• People management issues</li> <li>• Personal career planning</li> </ul>
Teaching strategies	<ul style="list-style-type: none"> <li>• Basic theoretical concepts will be covered in lectures</li> <li>• Students are expected to discuss the application of concepts in class discussions</li> <li>• Application of project management will be made in the project plan</li> <li>• In-depth research by a selected assignment topic</li> </ul>

### Assessment Tasks

<b>Assessment Task</b>	<b>Weighting</b>
Project Plan	20%
Assignment	20%
Cover Letter and Resume	10%
Final Exam*	50%

\*must be passed to pass the course

### Summary of Submission Deadlines

<b>Deadline</b>	<b>Submission</b>
midnight 29 July 2009	Nominate 3 preferences for an assignment topic
midnight 16 August 2009	Submit <i>Project Plan Part 1</i> (Overview, Objectives & Scope)
midnight 20 Sept. 2009	Submit <i>Project Plan Part 2</i> (Complete Report)
midnight 4 October 2009	Submit <i>Assignment</i>
midnight 8 October 2009	Submit <i>Cover Letter and Resume</i>

## Assessment Details

### 1. Project Plan (Groups of 4-5 assigned by course co-ordinator)

Your company has been manufacturing and selling a particular 'materials' product for 5 years. The company board has realised that increasing overseas competition has made it necessary to develop a next generation product for the same market which will involve new production processes. You have been assigned the task of creating the plan for the new product which is currently in its conception stage.

Develop a project plan including all project stages from the current existing concept to market release. The work will be conducted in two steps. The first step will be to provide the project overview, objectives and scope (this will include a high level justification for the project). This first deliverable is due **midnight 16 August 2009**. It should be brief but clear (expect <1000 words).

The second step will be to *extend* the first deliverable report (including modifications due to feedback) to become a complete project plan. The entire report should be around 2000 words (strictly <2200 words) but may also include appendices and is due **midnight 20 September 2009**.

Marks may be awarded as a group or individually. In the case of the latter, individual sections should be clearly indicated on submission. Report should be submitted via WebCT Vista in either Word or PDF format.

#### Marking Scheme:

Step 1 Content	4 marks
Step 1 Presentation	2 marks
Complete report – Comprehensiveness of and depth of content	10 marks
Complete report – Appropriate presentation, structure, referencing, assignment length	4 marks

### 2. Assignment (Groups of 2-3 chosen by students)

Assignment topics and allocation process are outlined below. You will be required to prepare a 2000±200 word discussion on one of these topics. This is due **midnight 4 October 2009**. Marks may be awarded as a group or individually. In the case of the latter, individual sections should be clearly indicated on submission. Report should be submitted via WebCT Vista in either Word or PDF format.

#### Marking Scheme

Outline and appropriateness of application of case study to topic	5 marks
Application of theoretical concepts and discussion	10 marks
Executive summary, conclusions and referencing	5 marks

### 3. Cover Letter Resume (Individual Work Only)

Students are required to bring their current resume to the Career Development lecture on Thurs., Week 11 (16 October). You will revise your resume and prepare a cover letter and submit them for assessment – this is due **midnight 8 October 2009**. Resume should be submitted via WebCT Vista in either Word or PDF format.

## ASSIGNMENT TOPICS

Students should choose their own groups. Each group should nominate three preferences for an assignment topic and email it to the course co-ordinator on WebCT Vista by **midnight 29 July 2009**. Students that fail to do this will be allocated arbitrarily an assignment topic by the course co-ordinator.

Students should consult the course coordinator to determine the:

1. Expected detail of the assignment
2. Obtain feedback on appropriateness of approach.

There are lists of suggested texts. These lists are not exclusive and serve as a guide only. It is expected that students will obtain the majority of their material from their own sources.

### 1. Supply and Demand

Consider a product or service which may be important to your organisation. Discuss with the aid of diagrams the key factors that have affected the supply of and demand for the product or service? Explain how these factors have affected the market price and the quantity sold. Make sure you carefully define your market

### 2. Theory of the Firm

Consider an organisation important to you. A) Describe what might be the cost structure of the firm. What are the fixed costs, and variable costs? Can the variable costs be easily allocated to each product? In practice how easy is it to choose what is fixed and what is variable? What are capacity constraints that will affect variable costs? B) Consider the economic profits the firm owners will be making. Are there any differences between economic and accounting profit in this case. Is the firm likely to be making economic profits now?

### 3. Market Structure

Consider an organisation you might work for in the future. What market structure best describes the organisation's main market that operate in. How does the market structure affect its pricing and production decisions and any other behaviour.

### 4. Market Failure

Consider an environmental issue (if possible consider one that might affect your business). Describe the issue in terms of externalities or public goods. Are property rights well defined? What could be (and what is if appropriate) Government policy.

### Suggested Texts for topics 1-4

As the economics is of an introductory nature, any introductory economics text will be useful for this course

### Suggested References

Frank and Bernanke 2004, *Microeconomics*. McGraw Hill. Second Edition  
Heineke, J.M. 1976, *Microeconomics for Business Decisions*, Prentice-Hall, New Jersey.

Heyne, P. 1991, sixth edition, *The Economic Way of Thinking*, Science Research Associates, Chicago.  
Quirk, J.P. 1982, second edition, *Intermediate Microeconomics*, Science Research Associates, Chicago.  
Riggs, J.L. 1986, second edition, *Engineering Economics*, McGraw-Hill, New York.  
Blank, L.T. and Tarquin, A.J. 1989, third edition, *Engineering Economy*, McGraw-Hill, New York.  
Mansfield, E. 1991, seventh edition, *Microeconomics*, Norton, New York.  
Mishan, E.J. 1982, 3rd ed, *Cost-Benefit Analysis*, George Allen and Unwin, Lond.  
Stegman, T. and Junor, C.W. 1993, *Introductory Macroeconomics*, Harcourt Brace, Sydney.

Plus articles selected by specific topic from the following serials:

*Student Economic Briefs*, Clark, David 1991+, annual, Australian Financial Review Library, John Fairfax, Sydney.

### 5. Micro-Skills Of Management Communication

You are undertaking a restructure in your organisation. Choose a scenario pertinent to recent changes in the Australian materials industry and provide an outline of the steps you would take to instigate this change and how you would communicate them to staff.

*Reading:* Smith, Chapter 7, pp. 115-135.  
Dunphy, pp. 110-122.  
Handy, Chapter 3, pp. 72-91.

*References:* Fisher, R. & Ury, W., *Getting to Yes*, Hutchinson, 1982.  
Kanter, R.M., *The Change Masters*, Unwin, 1985, Ch. 8.  
Kolb, D. et al., *Organisational Psychology*, Prentice-Hall, 1984, Chs. 9, 10.  
Leavitt, H.J., *Readings in Managerial Psychology*, 3rd edit., 1980. Articles by Gibb, Kolb & Boyatzis, Hall & Whyte.

### 6. Managerial Decision Making

Major policy decisions on new products or services, new technologies, etc. capture the limelight, but managerial decision making is equally evident and crucial in the 'everyday affairs' of an organisation. Consider a business decision which has been faced recently and outline the processes that would be used to achieve an outcome. Distinguish between problem solving and problem identification, what resources can we call on to sense problems and opportunities?

*Reading:* Janis, I.L. & Mann, L., *Decision Making*, Free Press, 1977, Chs. 1,2.

*References:* de Bono, E., *The Five Day Course in Thinking*, Penguin, 1969.  
de Bono, E., *Teaching Thinking*, Penguin, 1976.  
Janis, I.L. & Mann, L., *Decision Making*, Free Press, 1977, Chs. 1-7, 10.  
Janis, I.L., *Group Think*, 2nd edit., Houghton Mifflin, 1984.  
Leavitt, H.J., *Readings in Managerial Psychology*, 1980. Articles by Ornstein, McKenny & Keen, Adams, Aronson, Janis.  
Rowe, A.J. et al., *Managerial Decision Making. Modules in Management*. Science Research Associates, Chicago, 1984.  
Taggart, W., & Robey, D., *Minds and Managers; on the dual nature of human information processing and management*, Academy of Management Review, 6/2, 1981.  
Swap, W.C., *Group Decision Making*, Sage, 1984.  
Wright, G., *Behaviour Decision Theory*, Penguin, 1984.

## 7. Stress At Work

In recent years, 'managing stress' has become part of management jargon. The proliferation of publications and professionals in this area has created almost an industry within industry. What are the symptoms and sources of stress, individual and organisational? What is involved in the various strategies of dealing with stress? What are the costs and benefits?

*Reading:* Smith, Chapter 5, pp. 72-96.  
Handy, Chapter 3, pp. 57-72.

*References:* Beehr, T.A. & Bhagat, R.S., *Human Stress and Cognition in Organizations*, Wiley, 1985.  
Benson, H., *The Relaxation Response*, Collins, 1977.  
Boyd, D., "Coping with Entrepreneurial Stress", *Harvard Business Review*, March / April, 1983.  
Brown, B., *Stress and the Art of Biofeedback*, Bantam, 1977.  
Cooper, C. & Marshall, J., *Understanding Executive Stress*, MacMillan, 1978.  
Hunt, J. & Collins, R., *Managers in Mid-Career Crisis*, Wellington Lane, 1983.  
Levinson, H., "When Executive Burn Out", *Harvard Business Review*, May-June, 1981.  
Seyle, H., *The Stress of Life*, McGraw-Hill, 1976.  
Spillane, R., *Stress at Work*, *International Journal of Health Services*, 1984, Vol. 14, pp. 589-604.

## 8. Goal Setting And Performance Appraisal

A critical evaluation of management-by-objectives and performance appraisal systems. Practical skills of interviewing and negotiating. Exploring ways in which management by objectives and self control can be implemented effectively.

*Reading:* Smith, Chapters 3, 6, 9.

*References:* Csikszentmihalyi, M., *Beyond Boredom and Anxiety*, Jossey Bass, 1975.  
Drucker, P., *The Practice of Management*, Heinemann, 1954.  
Levinson, *The Great Jackass Fallacy*, Harvard Univ., 1973 Chapter 6.  
Jenkins, D., *Job Power*, Doubleday, 1973.  
McGregor, D., *The Human Side of Enterprise*, McGraw- Hill, 1960.  
Townsend, R., *Up the Organisation*, Coronet, 1971.

## 9. Reward Structures

One of the most important issues when attempting to motivate a workforce is the creation of appropriate means of reward. Discuss the issues associated with monetary versus other types of reward and the concept of rewarding the group versus the individual. You should draw from both psychological and behavioural studies as well as presenting case studies.

*Reading:* to be discussed with facilitator

## 10. Marketing Fundamentals

The role of marketing in society, marketing information systems and marketing research, economics fundamentals, target markets, product planning, and development of new products.

### *References - Marketing*

P. Kotler, P. Chandler, R. Gibbs, and R. McColl, *Marketing in Australia*, 2nd Edition, Prentice-Hall, New York, 1989.  
E.J. McCarthy and W.D. Perreault, *Basic Marketing - A Managerial Approach*, Irwin, 9th Edition, 1987  
Theodore Levitt, *The Marketing Imagination*, Free Press, New York, 1986

D. Midgley and G. Wills, Eds. *Marketing Management*, MCB Limited, Bradford, 1977

M.J. Baker and Susan J. Hart, *Marketing and Competitive Success*, P. Allan, New York, 1989

R. Heller, *The Naked Market: Marketing Methods for the 80s*, Sidgwick & Jackson, London, 1984

*Insights into Australian Marketing: Readings and Cases*, Prentice-Hall, New York, 1990

### **11. Pricing Strategies, And Planning Marketing Programs**

Pricing policies, marketing computations, planning and implementation of marketing programs, distribution, promotion, international marketing.

*References – as for marketing fundamentals*

## Academic Honesty and Plagiarism

### What is Plagiarism?

Plagiarism is the presentation of the thoughts or work of another as one's own.\*

Examples include:

- direct duplication of the thoughts or work of another, including by copying material, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, web site, Internet, other electronic resource, or another person's assignment without appropriate acknowledgement;
- paraphrasing another person's work with very minor changes keeping the meaning, form and/or progression of ideas of the original;
- piecing together sections of the work of others into a new whole;
- presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or a tutor; and
- claiming credit for a proportion a work contributed to a group assessment item that is greater than that actually contributed.†

For the purposes of this policy, submitting an assessment item that has already been submitted for academic credit elsewhere may be considered plagiarism.

Knowingly permitting your work to be copied by another student may also be considered to be plagiarism.

Note that an assessment item produced in oral, not written, form, or involving live presentation, may similarly contain plagiarised material.

The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does *not* amount to plagiarism.

The Learning Centre website is main repository for resources for staff and students on plagiarism and academic honesty. These resources can be located via:

[www.lc.unsw.edu.au/plagiarism](http://www.lc.unsw.edu.au/plagiarism)

The Learning Centre also provides substantial educational written materials, workshops, and tutorials to aid students, for example, in:

- correct referencing practices;
- paraphrasing, summarising, essay writing, and time management;
- appropriate use of, and attribution for, a range of materials including text, images, formulae and concepts.

Individual assistance is available on request from The Learning Centre.

Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting, and the proper referencing of sources in preparing all assessment items.

\* Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle

† Adapted with kind permission from the University of Melbourne.

### **Continual Course Improvement**

- You will be asked to provide evaluative feedback through the UNSW's Course and Teaching Evaluation and Improvement (CATEI) Process in Week 12.
- A feedback facility will be provided on Vista
- Students are encouraged to raise any matters of concern with the lecturer.
- We welcome feedback at all times on presentation of course materials and any other course-related matters, and will be happy to discuss any issues raised in the lectures.
- Feedback from prior assessments will be discussed in lecture 1.

### **Administrative Matters**

- Students should attend at least 80% of all classes otherwise a failure in the course may be awarded, irrespective of the mark attained.
- Assessment work submitted after the deadline will receive a 10% of max. grade penalty for every day late, or part thereof. Submission date recorded in WebCT Vista will be used as the record of submission.
- Students that fail to submit any assessment task will receive zero marks for it. In the case of failure in the course, students will not be permitted to submit the assessment task retrospectively and the failure will stand.
- Students unable to submit assignments on time or attend the final exams on health grounds should make a request for special consideration by submitting the form available from the Student Desk in the Chancellery. Medical certificates or other appropriate documents must be included. Students should also advise the lecturer.
- Students who have a disability that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the course convener prior to, or at the commencement of, their course, or with the Equity Officer (Disability) in the Equity and Diversity Unit (9385 4734 or [www.equity.unsw.edu.au/disabil.html](http://www.equity.unsw.edu.au/disabil.html)). Early notification is essential to enable any necessary adjustments to be made. Information on designing courses and course outlines that take into account the needs of students with disabilities can be found at:

[www.secretariat.unsw.edu.au/acboardcom/minutes/coe/disabilityguidelines.pdf](http://www.secretariat.unsw.edu.au/acboardcom/minutes/coe/disabilityguidelines.pdf)