MATS4008

Materials Engineering Project
(12 UoC)

Course Outline
Sessions 1 and 2, 2015
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Your Course at a Glance

The School offers 12 UoC, 18 UoC and 24 UoC options for this course. The 24 UoC version (MATS4010) is for students who have achieved a weighted average mark (WAM) above 70 for the first 3 Stages of study and who have applied successfully to the Head of School for permission to take this option. The 12 UoC thesis is specifically for BE/Biomed students. The 18 UoC version is for other students and those who prefer to take additional elective courses. This Course Outline is for the 12 UoC version.

<table>
<thead>
<tr>
<th>What you will do</th>
<th>Weeks</th>
<th>Assessment task</th>
</tr>
</thead>
<tbody>
<tr>
<td>SESSION 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Laboratory safety training course</td>
<td>TBA</td>
<td>Written PMP submission</td>
</tr>
<tr>
<td>2. Project management plan (PMP)</td>
<td>4</td>
<td>Written Lit. survey submission</td>
</tr>
<tr>
<td>3. Introduction and literature survey</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>4. Professional communication and presentation: Lectures</td>
<td>1-12</td>
<td>Oral presentation</td>
</tr>
<tr>
<td>5. Professional communication and presentation: Presentation 1</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>SESSION 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Professional communication and presentation: Presentation 2</td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

Note: Risk Assessment(s) must be submitted and approved before any experimental work is done. FAILURE TO COMPLETE A RISK ASSESSMENT PRIOR TO UNDERTAKING EXPERIMENTAL WORK WILL RESULT IN SUSPENSION FROM THE UNIVERSITY’S LABORATORIES AND AFFECT SUCCESSFUL COMPLETION OF THE COURSE.

Course Objectives

The objective of this course is for students to learn to undertake self-directed investigation and research, building upon the skills learnt in the degree to date, and to communicate these findings in written and oral presentation.

The research and thesis section is an experimental, technical investigation or design-related investigation pertaining to materials engineering in a specific discipline (metallurgical engineering, materials engineering or ceramic engineering).

The aim of the course is to plan, implement, and complete a research project on a selected topic in the overall discipline of materials engineering and science. The project is designed to utilise and integrate many of the concepts, principles, and techniques learnt in the BE program and should foster numerous graduate attributes including literature retrieval, critical analysis of literature, design and execution of experiments, project management, data interpretation, interacting with technical staff and external companies, and report writing.

The Professional Communication and Presentation section aims to equip students with a professional level of skills in thesis presentation, public speaking, visual aids preparation, and job acquisition strategies (C.V. and cover letter preparation, interview skills, tests and questionnaires, and nonverbal communication).
Course staff

Dr Jianqiang Zhang  
(Materials)  
Course and Thesis Coordinator  
Room 348, School of Materials Science and Engineering (Building E10)  
Phone: 9385 5025  
Fax: 9385 6565  
j.q.zhang@unsw.edu.au

Consultation hours: by appointment

Professor C. C. Sorrell  
(Materials)  
Professional Communication and Presentation Course Convenor  
Room 248 School of Materials Science and Engineering (Building E10)  
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c.sorrell@unsw.edu.au

Consultation hours: by appointment

Supervisors

<table>
<thead>
<tr>
<th>Supervisor</th>
<th>Email</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/Prof. Sammy Chan</td>
<td><a href="mailto:sli.chan@unsw.edu.au">sli.chan@unsw.edu.au</a></td>
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<tr>
<td>Prof. Mark Hoffman</td>
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<tr>
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<td>Prof. Chris Sorrell</td>
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<tr>
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<tr>
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<tr>
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<td>Dr Tania Vodenitcharova</td>
<td><a href="mailto:Tania.v@unsw.edu.au">Tania.v@unsw.edu.au</a></td>
<td>MSE 221</td>
</tr>
</tbody>
</table>
Timetable
Thursdays 09:00 – 11:00 Chemical Science M10 (K-F10-M10)

Course Outline
For the thesis component please refer to the timetable given on page 2 of this booklet. For the professional presentation and communication component the weekly outline of the lectures is given below:

<table>
<thead>
<tr>
<th>Session 1</th>
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<tbody>
<tr>
<td>Week</td>
<td>Topic</td>
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<tr>
<td>1</td>
<td>Preliminary Session 1</td>
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<tr>
<td>2</td>
<td>Preliminary Session 2</td>
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<tr>
<td>3</td>
<td>Cover Letters, C.V.s, and Résumés</td>
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</tr>
<tr>
<td>4</td>
<td>Interview Skills</td>
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<tr>
<td>5</td>
<td>Nonverbal Communication</td>
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</tr>
<tr>
<td>6</td>
<td>Tests and Questionnaires</td>
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<tr>
<td>7</td>
<td>Thesis Preparation</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Speaking Techniques and Problems</td>
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<tr>
<td>9</td>
<td>Visual Aids</td>
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<tr>
<td>10</td>
<td>Demonstration Presentations</td>
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</tr>
<tr>
<td>11</td>
<td>Practice Session 1</td>
<td></td>
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<tr>
<td>12</td>
<td>Practice Session 2</td>
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</tr>
<tr>
<td>13</td>
<td>Student Presentations 1</td>
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</table>

<table>
<thead>
<tr>
<th>Session 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Student Presentations 2</td>
</tr>
</tbody>
</table>

The Thesis will have two main components

I. Experimental component: This part of the course is 12 UOC with a loading of 6 UOC in Session 1 (plus 12 UOC of core courses) and 6 UOC in Session 2 (plus 18 UOC of electives). This loading is intentional: students are required to complete the literature survey in Session 1 and all experimental work and related discussion by Week 12 in Session 2. There is no formal attendance and all work is self-directed. Students are encouraged to consult regularly with their supervisors in order to ensure satisfactory progression.

II. Professional communication and presentation: This part of the course is worth 20% of the final mark. The lecture material will be provided in Weeks 1-12 of Session 1. Students will make oral presentations of their literature surveys in Week 13. No formal lectures will be provided in Session 2, although students will make oral presentations of their experimental results in Week 13.

Students are required to purchase from the UNSW bookstore a workbook that will be used as an extensive source of reference material for the professional communication and presentation component by Professor Sorrell.
Assessment

The thesis component of the course carries a weight of 80% of total marks. Assessment is on the basis of the written work submitted. Please refer to the section below for details of the assessment and to the following section for expected content of the Honours Thesis. Unless otherwise stated, all work is to be submitted to the School Office. Late work will attract penalties. The detailed assessment tasks related to the thesis are explained below. Students are encouraged to note the explanations below.

All Honours theses must be the student’s own work. All references should be properly cited and any plagiarism is forbidden in all parts of the thesis. (see Academic Honesty and Plagiarism Rules on Page 19). All theses will be run through an academic plagiarism-checking program. Any such academic misconduct could result in serious consequences in the assessment of the thesis.

The Professional Communication and Presentation component carries 20% of the course weighting. Assessment for this section is based on the following:

<table>
<thead>
<tr>
<th>Presentation 1 (12 minutes)</th>
<th>8%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation 2 (17 minutes)</td>
<td>12%</td>
</tr>
</tbody>
</table>

1) LABORATORY SAFETY TRAINING COURSE

Due: Week 3, Session 1 – time to be advised
Location: TBA, MSE
Details: Students undertaking any experimental work are required first to attend the Laboratory Safety Training Course. Students who do not attend this course will be forbidden to start experimental work until appropriate safety training is completed – this may result in significant delay in commencing experimental work.

2) PROJECT MANAGEMENT PLAN

Due: 5:00 pm, 27 Mar 2015 (Friday, Week 4, Session 1)
Submission: Upload to MATS4008 Moodle course site.
Coversheet: Coversheet (downloadable from the Moodle course site) must accompany the submitted plan, which must be signed by the academic supervisor to the effect that the plan is reasonable in terms of academic scope as well as the available time and resources.
Late Penalty: Work submitted after the deadline will attract a penalty of 2 marks of the total honours thesis mark per day (or part thereof) late.
Marking: Marked by one marker nominated by the School.
Details: The aim of this assignment is to develop a project management plan for the Honours Project. The plan should include the following:
1. General Outline including:
   a. Description of the project to be undertaken
   b. General scope of the project
   c. Critical personnel
2. Goals of the Project
3. Project Selection
4. Project Planning
5. Budgeting and Cost Estimation
6. Scheduling
7. Resource Allocation (including inventory & status of all equipment)
8. Monitoring and Project Control
9. Project Auditing
10. Project Termination

Length: Maximum 8 A4 pages

Assessment:

<table>
<thead>
<tr>
<th>Category</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completeness of Plan</td>
<td>10</td>
</tr>
<tr>
<td>Appropriate Application of Theories</td>
<td>10</td>
</tr>
<tr>
<td>Clarity, Presentation, and Structure</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>

Coursework: Project Management is taught in MATS1244 Management (core course). For students who have not done this course, relevant lecture notes are posted on the Moodle course site to assist in the formulation of the project management plan.

3) INTRODUCTION AND LITERATURE SURVEY

Due: 5:00 pm, Friday, Week 10, Session 1

Submission: Hand-in hard copy to School Office

Late Penalty: Work submitted after the deadline will attract a penalty of 5 marks of the total honours thesis mark per day (or part thereof) late.

Details: Students must submit to the School Office one copy of the completed Introduction and Literature Review thesis chapters. These chapters will be marked by the supervisor only at this stage and returned within 2 weeks of submission. Therefore, the completed version of these chapters is expected by this deadline; this deadline is not for the submission of a draft version. In particular, the Literature Review is to be properly written and referenced. Students are strongly advised to submit any drafts of these chapters to their supervisor beforehand in order to give the supervisor time to provide feedback and to return the work. Refer to 4. Expected Content of Honours Theses for guidelines of expected content and length of these chapters. Refer to 5. Special Consideration for details concerning requests for extensions to the deadline.

4) RISK ASSESSMENT OF EXPERIMENTAL WORK

Due: No set date but must be completed and approved PRIOR TO ANY experimental work is commenced.

Submission: Hand-in hard copy to academic supervisor.

Details: A detailed risk assessment of all experimental work is required BEFORE ANY EXPERIMENTAL WORK IS DONE. Students are strongly urged to consult with their supervisor when completing the Risk Assessment. A new Risk Assessment is required for any later experimental work not
covered in the original Risk Assessment. The Risk Assessment form is available in electronic form from the school website.

**FAILURE TO COMPLETE A RISK ASSESSMENT PRIOR TO UNDERTAKING EXPERIMENTAL WORK WILL RESULT IN SUSPENSION FROM THE UNIVERSITY’S LABORATORIES AND AFFECT SUCCESSFUL COMPLETION OF THE COURSE.**

In addition to your supervisor, the School’s Safety Officer (Mr Anthony Zhang), and the Laboratory Safety Training Course, information on relevant UNSW Occupational Health and Safety policies and expectations can be obtained from:

www.riskman.unsw.edu.au/ohs/ohs.shtml

5) **THESIS PROGRESS REPORT**

**Due:** No later than 5:00 pm Friday Week 4, Session 2

**Submission:** Hand-in hard copy to School Office

**Late Penalty:** Forms submitted after the deadline will not be accepted. Completion of the thesis progress report form is mandatory to be considered for project extension and explanation of any delays. Incomplete or unsatisfactory forms will attract negative marks in final honours thesis.

**Details:** Students must submit the form to the School Office.

It is recommended that students discuss the contents of the Progress Report form with their supervisor. If there are any unresolved issues the students are asked to contact Dr. Jianqiang Zhang as soon as possible.

6) **COMPLETED THESIS (UNBOUND)**

**Due:** 5:00 pm Friday, Week 12, Session 2

**Submission:** Hand-in hard copy to School Office

**Late Penalty:** Work submitted after the deadline will attract a penalty of 5 marks of the total honours thesis mark per day (or part thereof) late.

**Details:** Students must submit two copies of the entire completed thesis (a maximum of ~60 pages in total length), unbound, to the School Office. Refer to 4. *Expected Content of Honours Theses* for guidelines of expected content and length of these chapters. Students are strongly advised to submit any drafts of the thesis well before this deadline in order to give the supervisor time to read, correct, and return the work. Refer to 5. *Special Consideration* for details concerning requests for extensions to the deadlines.

It is recommended that students use bulldog clips, manilla folder, or something similar to bind the thesis at this stage (i.e., do not use any form of semi-permanent binding) because, in most cases, these submitted copies can be used for the final bound copies (one for student, one for supervisor) thus avoiding the need to print out further copies for binding.

The completed thesis is marked by the supervisor (the Introduction and Literature Survey chapters are read but not remarked) and by another academic whose name is not released to the student. Marks averaged
from the supervisor and other academic (as per the Marking Sheet) will be given to the student.

7) **COMPLETED THESIS (BOUND)**

**Due:** 5:00 pm, Friday 4 December 2015

**Submission:** Hand in bound hard copy to School Office

**Late Penalty:** Failure to submit the bound copy will result in the final Honours degree being withheld thus possibly preventing graduation in the April ceremony.

**Details:** Notice will be sent when theses will be available for collection from the School Office. One bound copy of the final thesis is to be submitted to the School Office by the due date. Binding is to be done professionally in hardcover (ring-binding, thermal binding, etc. are unacceptable) as follows:

- **Binding Fabric:** buckram
- **Binding Colour:** navy blue
- **Lettering Colour:** gold
- **Lettering on Spine:** see diagram

Nb. Two bookbinders used routinely by UNSW students are: Allbook Bindery (West Ryde) and All States Bookbinding (Marrickville).

**Expected Content of Honours Thesis**

The final thesis in MAT4008 should be a maximum of ~60 pages in total length. Guidelines detailing expected formatting of the honours thesis are given as part of Professional Communication and Presentation component of the course.

1. **Abstract**
   This should be between one and two pages in length. It should briefly but succinctly summarise the following points: problem investigated; procedures followed; principal results obtained; and major conclusions reached.

2. **Introduction**
   This should be between two and three pages in length. It should provide a general background to the thesis topic, indicating the nature of the field, the state of knowledge of the subject, and why the topic is of interest. This should lead to a brief and general discussion of the work undertaken and described in the thesis. The Introduction should end with a general statement of the project aims.

3. **Literature Survey**
   This should be ~30 pages maximum in length. It should be comprehensive but should be strictly confined to issues, which are highly relevant to the thesis topic. A sufficient amount of information should be provided so that an adequate general background to the thesis topic is given. The Literature Survey should be up-to-date, it should be accurate and it should be properly referenced (REFER TO ACADEMIC HONESTY AND PLAGIARISM RULES on Page 19). Most importantly of all, it should be analytical in
nature. That is to say the findings, interpretations and opinions of other writers should be compared; conflicts and/or agreements should be identified; gaps in knowledge or understanding should be pointed out. Do not pad the Literature Survey with material that is irrelevant or of peripheral interest to the thesis topic.

The Literature Survey is written for professionals. It must not be too basic. Instead it should be written on the premise that the reader should be familiar with the broad technical area of the thesis discipline but that he or she may be unfamiliar with the specific thesis topic and relevant terminology.

The number of references used in the Literature Survey depends on the thesis topic. Certain thesis topics may not have been extensively studied in the past and, as a consequence, the Literature Survey will be relatively brief (yet still comprehensive).

A Literature Survey must lead to conclusions if it is to be of any use. These conclusions in turn permit the author to formulate and define the specific project aims.

4. Experimental Procedure

This section should begin by presenting an experimental plan that will answer the questions raised in the Literature Survey and, hence, achieve the project aims. An Experimental Plan is a very important part of the thesis, although it is usually rather brief.

A brief but concise description of the experimental procedure should then be presented. The Experimental Procedure should be descriptive to the point that another trained scientist or engineer would be able to repeat the experiments or measurements. It must clearly state the analytical methods used (a theoretical background of the analytical methods is not necessary). It must also specify the variables, which are being explored and state over what range of values.

Experiments and/or analyses conducted off-campus during summer employment (e.g., during industrial training) must be identified as such.

5. Results

This chapter should be brief but complete. Logical organisation is important so as to achieve brevity. Appropriate use must be made of graphs and/or tables in order to achieve condensation. The use of correct units, scales, magnifications and the specification of errors are, of course, essential.

Results obtained during summer employment (e.g., during industrial training) must be identified as such.

6. Discussion

This chapter is of crucial importance and much of the intellectual content of the thesis will be found within it. The results will have to be interpreted, that is, reasons for the observed behaviour, patterns, correlations, etc. must be advanced and evaluated. Such interpretation will commonly require the use of the information or data presented in the literature survey. If possible, predictions should be made on the basis of any models advanced.

The Discussion must place the results within the context of information summarised in the literature review. Most significantly of all, the findings must be used in answering the questions posed by the project, that is, in achieving the project aims.

To meet the various requirements, a good discussion will lead in a logical way to the conclusions with which the thesis will end.
7. **Summary and Conclusions**

This Chapter should be no more than four pages in length. It should summarise both the results and their ramifications. This section represents a brief overview of the findings and their significance.

8. **References**

This section lists full citations of literature references used in the thesis.

**Note:** Students are strongly advised to submit any drafts of work for assessment to their supervisor at least one week before this deadline in order to give the supervisor time to read, correct, and return the work.
**MARKING SHEET - MATS4008 (12 UoC)**

(Please also see next section)

**SECTION I: Thesis Component**

This section carries 80% weight of the final mark.

<table>
<thead>
<tr>
<th>Student:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thesis Title:</td>
</tr>
<tr>
<td>Examiner:</td>
</tr>
<tr>
<td>Signature:</td>
</tr>
</tbody>
</table>

**Project Management Plan**

1. Completeness of plan: /10
2. Appropriate application of theories: /10
3. Clarity, presentation and structure: /10

Mark: /30

**Abstract, Thesis Format and Presentation**

1. Quality of Abstract: /20
2. English expression and spelling: /10
3. Thesis formatting & general impression: /10

Mark: /40

**Introduction and Literature Review Chapters**

1. Level of presentation, extent and relevance: /10
2. Critical assessment of the literature: /10
3. Referencing: /10
4. Establishment of project aims: /10

Mark: /40

**Experimental Procedure Chapter**

1. Completeness and clarity of experimental outline: /10

Mark: /40

**Results/Work Effort**

1. Amount of experimental work done: /10
2. Completeness of study: /10
3. Quality, logic and organisation of experiments: /10
4. Use of graphs, figures and tables to summarise results: /10

Mark: /40

**Discussion and Conclusions**

1. Level of understanding: /10
2. Interpretation of results and sophistication of analysis: /10
3. Handling and identification of errors: /10
4. Comparison with other data: /10
5. Achievements with respect to project aims: /10

Mark: /50

**TOTAL MARK:** /80

The Project Management Plan is marked by one marker nominated by the School. The Introduction and Literature Survey is marked by the supervisor in Session 1. The completed thesis is marked by the supervisor and a nominated examiner in Session 2. The name of the examiner is not given to the student. The average of these marks are reported to the student via WebCT. All feedback and discussion concerning the marked work is between the student and the supervisor.
6.2 THESIS PROGRESS REPORT - MATS4008 (12 UoC)

Student: ____________________________________________

Thesis Title: ____________________________________________

(1) Achievements to Date (Bulleted short descriptions preferred)

(2) Delays to Project Plan: Outline Reasons

(3) Tasks remaining as per plan

(4) Changes to plan: Outline Justification

Agree/Disagree ___________________________ Student Signature ___________________________ Student Name

Agree/Disagree ___________________________ Supervisor Signature ___________________________ Supervisor Name

The Thesis Progress Report above is a mandatory part of the honours thesis. Please ensure that all sections are duly filed and both signatures at the bottom of the page are acquired. This form is to be submitted in Week 4 /Session 2 no later than Friday by 5 p.m.
SECTION II: Assessment for Professional Communication and Presentation Component

This section carries 20% weight of the final mark.

MATS1464 MATERIALS SEMINAR

ASSESSMENT FORM

Name of Speaker
Subject of Thesis
Date
Are You the Lecturer or the Supervisor ?

CHECK ONE

TECHNICAL CONTENT (20% of Total)
1. The technical standard of the material was:
2. The amount and adequacy of the material were:
3. The depth to which the material was covered was:
4. The interest of the material presented was:
5. The ability to answer questions was:

Mark (100%) ________ Mark (× 0.2) ________

QUALITY OF PRESENTATION (50% of Total)
Structural
6. The organisation of the material was:
7. The balance of the material of the presentation was:
8. The logic and orderliness of the material were:
9. The focussing on the important points was:
10. The clarity of the presentation was:
Verbal
11. The pacing of the spoken words was:
12. The pronunciation and enunciation were:
13. The smoothness of the verbal delivery was:
14. The volume, pitch, and voice modulation were:
15. The avoidance of extraneous vocal mannerisms was:

Physical
16. The control of nervousness was:
17. The degree to which the speaker faced the audience was:
18. The eye contact of the speaker with the audience was:
19. The use of effective body movements was:
20. The avoidance of extraneous physical mannerisms was:

Mark (100%) ____________  Mark (× 0.5) ____________

VISUAL IMPRESSION (10% of Total)

Visual Aids
21. The pacing of the presentation of the visual aids was:
22. The interest and effectiveness of the visual aids were:
23. The pertinence of the visual aids to the presentation was:
24. The legibility and neatness of the visual aids were:

Appearance
25. The overall physical appearance of the speaker was:
26. The posture and deportment of the speaker were:

Mark (100%) ____________  Mark (× 0.1) ____________

OVERALL IMPRESSION (20% of Total)
27. The overall impression of the presentation was:

Mark (100%) ____________  Mark (× 0.2) ____________

TOTAL SCORE

Mark (Sum) ____________
MAT 1464

PROFESSIONAL COMMUNICATION AND PRESENTATION

SUPERVISOR’S ASSESSMENT FORM

Name of Speaker _______________________
Subject of Thesis _______________________
Date _______________________
Name of Assessor _______________________

TECHNICAL CONTENT (20% of Total)

CHECK ONE

E V
x e
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G G F P
o o a o
n o i o
t d d r
t

In terms of the suitability for conference presentation:

1. The quality of the information presented was: _______________________
2. The depth to which the material was covered was: _______________________
3. The effectiveness in transmitting the essential information was: _______________________
4. The clarity and conciseness of the data presented were: _______________________
5. The overall technical standard was: _______________________

Mark (100%) _______ Mark (× 0.2) _______

(Please return the completed form to the course lecturer following the presentation)
Learning and teaching philosophy underpinning the course
(based on UNSW Learning Guidelines)

The course is designed for students to engage actively in the learning process and to analyse and synthesise the content in a real-world environment.

• **Students are engaged actively in the learning process.**
  
  It is expected that, in addition to attending classes, students will read, write, discuss, and engage in analysing the course content.

• **Effective learning is supported by a climate of inquiry, where students feel appropriately challenged.**
  
  Students are expected to be challenged by the course content and to challenge their own preconceptions, knowledge, and understanding by questioning information, concepts, and approaches during class and study.

• **Learning is more effective when students’ prior experience and knowledge are recognised and built on.**
  
  Coursework, tutorials, assignments, laboratories, examinations, and other forms of learning and assessment are intended to provide students with the opportunity to cross-reference these activities in a meaningful way with their own experience and knowledge.

• **Students become more engaged in the learning process if they can see the relevance of their studies to professional and disciplinary contexts.**
  
  The course content is designed to incorporate both theoretical and practical concepts, where the latter is intended to be applicable to real-world situations and contexts.

Course Information

<table>
<thead>
<tr>
<th>Units of credit</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>How the course relates to other course offerings and overall program(s) in the discipline</td>
<td>The Honours project is a self-directed research project intended to draw together many of the knowledge and skills learnt in the BE(Materials Science and Engineering) degree. The extent and nature to which previous courses contribute to the Honours project depends upon the particular project.</td>
</tr>
</tbody>
</table>

| Graduate attributes which will be gained through the course† | • Literature retrieval  
|                                                          | • Critical analysis of literature  
|                                                          | • Design and execution of experiments  
|                                                          | • Project management  
|                                                          | • Data interpretation,  
|                                                          | • Interacting with technical staff and external companies ability to communicate effectively  
|                                                          | • Report writing  
|                                                          | • Capacity for creativity and innovation  
|                                                          | • Ability to manage information and documentation  
|                                                          | • Understanding of professional and ethical responsibilities, and commitment to them  
|                                                          | • Ability to function effectively as an individual  
|                                                          | • Ability to work effectively in multidisciplinary and multicultural teams  
|                                                          | • Capacity for lifelong learning and professional development |

† Graduate attributes are intended to be further developed in the BE(Hons) in Materials Science and Engineering.
| Expected learning outcomes | The Honours project offers opportunity for students to learn cooperatively with peers in use of library resources, experimental equipment, and computer resources. This fosters the development of interpersonal, professional, and cognitive skills to a higher level.  
All aspects of Professional Communication and Presentation will be taught with the aim of providing students with the skills to present themselves professionally. |
| Teaching strategies | Each student is expected to maintain a regular dialogue with their supervisor (for example by weekly meetings) about their project thus promoting motivation and engagement in their work.  
The expectations, goals, learning outcomes, and course requirements are clearly articulated in this document to increase student motivation and improve learning.  
Assessment practices in the Honours project have been refined over the years, much in response to student feedback, to achieve the above learning outcomes. The assessment tasks are clearly defined in this document. Feedback will be given to each of the assessment tasks. In particular, students will be given opportunity to submit work prior to the listed deadlines so as to receive feedback from their supervisor.  
All aspects of Professional Communication and Presentation will be taught through lecture, demonstration, and critique. |
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

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

- Students will be asked to provide evaluative feedback through the UNSW's Course and Teaching Evaluation and Improvement (CATEI) process at the end of the course
- Students are encouraged to address any problems regarding teaching of this course at the annual staff-student meeting
• Student comments on teaching during the session are welcome and will be appreciated.

  At times students may be asked to answer a short questionnaire for feedback on the course.

**Administrative Matters**

• Students should attend at least 80% of all classes. Therefore, no more than 2 classes can be missed without failure.

• Use of social media (telephones, tablets, etc.) during class will result in expulsion from that class and a recording of absence on the day.

• Students unable to submit assignments on time or attend the mid-session quizzes or final exams on health grounds should make a request for special consideration. Information on this process can be found here (https://my.unsw.edu.au/student/atoz.SpecialConsideration.html). Medical certificates or other appropriate documents must be included. Students should also advise the lecturer of the situation.

• Assignments/lab reports submitted after the deadline will receive a 10% of maximum grade penalty for every day late, or part thereof.

• 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 coordinator prior to, or at the commencement of, their course, or with the Equity Officer (Disability) in the Equity and Diversity Unit (www.studentequity.unsw.edu.au). Early notification is essential to enable any necessary adjustments to be made.

**Rules for Exams**

Rules governing conduct during exams are given at:
https://my.unsw.edu.au/student/academiclife/assessment/examinations/examinationrules.html - Rules for the conduct of examinations

Note that the use of mobile phones or music players in an exam room will constitute Academic Misconduct.