



Engineering Project Requirements and Important Dates 2012

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Schedule of Dates

Dates for students who enrol in Engineering Project B in Semester 1 2012

Project Report Draft to supervisor	3:00pm Fri 18 May 2012 (S1 week 10)
Project Seminar	all day Fri 25 May 2012 (S1 week 11)
Report Final Submission to Room S444	3:00pm Thu 7 June 2012 (S1 week 13)

Dates for students who enrol in Engineering Project A in Semester 1 2012

Project Proposal to supervisor	3:00pm Tue 17 April 2012 (S1 week 6)
Project Progress Report to supervisor	3:00pm Fri 8 June 2012 (S1 week 13)

Dates for students who enrol in Engineering Project B in Semester 2 2012

Project Report Draft to supervisor	3:00pm Fri 12 October 2012 (S2 week 10)
Project Seminar	all day Fri 12 October 2012 (S2 week 10)
Report Final Submission to Room 444	3:00pm Thu 1 November 2012 (S2 Week 13)

Dates for students who enrol in Engineering Project A in Semester 2 2012

Project Proposal to supervisor	3:00pm Fri 2 September 2012 (S2 week 6)
Project Progress Report to supervisor	3:00pm Fri 2 November 2012 (S2 week 13)

Notes: Students who enrol in Engineering Project A and B in the same semester, should submit the Project Progress Report at the end of week 6. All dates are firm and can only be changed by the Head of School after application in writing. Verbal assurances by supervisors are not sufficient. Extensions will only be considered in cases of serious illness or misadventure. Problems with unfinished workshop jobs etc. are generally regarded as poor planning by the student. Penalty for late Project Report submission is 2% per day including weekend days.

Syllabus

The 4th year Engineering Project aims to provide students with the opportunity to carry out a defined piece of independent research or design work in a setting and in a manner that fosters the development of engineering skills in research or design. These skills include the capacity to define a research or design question, showing how it relates to existing knowledge, identifying the tools needed to investigate the question, carrying out the research or design in a systematic way, analysing the results obtained and presenting the outcomes in a report that is clear, coherent and logically structured.

Students are asked to write a project report based on a research or major design project, which is very often related to some aspect of a staff member's research interests. Some projects will be experimental in nature, others may involve computer-based simulation, feasibility studies or the design, construction and testing of equipment. In the normal course of events some or all of the theoretical, developmental and experimental aspects of research or design work are expected in a project. These aspects may be either directed by the supervisor or be of an original nature, but in either case the student is responsible for the execution of the practical work and the general layout and content of the project report itself.

In undertaking the project, students will learn how to examine published and experimental data, set objectives, organize a program of work and analyse results. They will also be expected to evaluate these results in relation to existing knowledge. The project report will be judged on the extent and quality of the student's original work and how critical, perceptive and constructive he or she has been in assessing his/her work in the context of others. Students will also be required to present the results of their findings to their peers and supervisors as part of a seminar program.

It is not expected that a project at this level will represent a significant contribution to new knowledge; nor is it expected that projects will resolve great intellectual problems. The time frame available for the project is simply too short to permit students to tackle complex or difficult problems. Indeed, a key aim of the project is to specify a research or design topic that arouses sufficient intellectual curiosity, and presents an appropriate range and diversity of technical and conceptual challenges, while remaining manageable and allowing achievable outcomes within the time and resources available. It is important that the topic be of sufficient scope and complexity to allow a student to learn their craft and demonstrate their research or design skills. Equally imperative is that the task not be so demanding as to elude completion.

Learning outcomes

The learning outcomes for this course are:

1. Ability to plan and undertake a research, or major design or technical project
2. Proposal for the intended work including setting objectives, organization of a program of work and devising an experimental or developmental program
3. An ability to design and conduct experiments/design work and to analyse and interpret data from those experiments or design
4. Preparation and submission of a project report at the end of the second semester detailing the context of the problem, relevant background research and outcomes of the investigation.
5. Ability to work in a team (if appropriate for the project)

Choice of topic and supervisor

If starting *Engineering Project A*, the topic and supervisor should have been registered with the project coordinator at the end of the previous semester. In any case it must be finalized with the project coordinator by the first week of lectures of the semester in which you are enrolled in *Engineering Project A*.

You must consult regularly (**at least once a fortnight and preferably once a week**) with your supervisor for the duration of the project. If the supervisor is to be absent for more than about two weeks during semester, an associate supervisor should be appointed during the absence. While there can be no rigid template for student-supervisor interaction, there are several critical roles that a supervisor is generally expected to perform. These include:

- providing advice about the limits or boundaries of the project
- guiding students to appropriate reading – and discussing this material
- helping to develop a broad timetable for completion of the project
- ensuring that students understand the relevant theories, and have the technical skills needed to answer the questions posed in the research
- fostering writing skills by way of constructive commentary
- being available to meet regularly and frequently with the student for discussion
- providing prompt feedback on drafts and papers submitted for comment
- setting goals and monitoring student progress
- encouraging student participation in the wider intellectual life of the Program, School and University

Equally important is that students recognise what supervisors are *not* there to do. This includes:

- supervisors should not provide students with topics, research questions, and detailed research plans: these tasks are integral to the process of learning to conduct research/design and are the job of the student – with the supervisor acting as guide
- supervisors should not write – nor re-write – the project report. Clear, concise written expression is a fundamental objective of engineering training which needs to be learned.

Workload Requirements

It is expected that students will spend at least one to two full days per week throughout the course of the year undertaking background research work, organizing their program of work, preparing and analysing results and writing the project report document itself.

Assessment Criteria

Assessment for this Unit of Study will be based on the evaluation of the progress report submitted at the end of Engineering Project A, the presentation of a seminar relating to their chosen topic and the project report document itself. The final grade for Engineering Project is based on the work done in **both** Engineering Project A and Engineering Project B. A mark for Engineering Project A and B will then be assigned based on the combined mark of the progress report, seminar presentation and the evaluation of the project report following completion of Engineering Project B. The final engineering project mark will consist of the following:

1. Progress Report (10%) – The progress report should at minimum include an introduction and literature survey in a form similar to that which will appear in the final project report, a table of contents showing proposed chapter and section headings, and a report of not more than 1000 words describing the work carried out thus far. Students should consult their supervisor when preparing the report.
2. Seminar (10%) – The seminar provides students with an opportunity to present their work to other students and staff. It is a compulsory part of project. The evaluation will be based on feedback from staff as well as a peer evaluation component. It will be based on the quality and coherence of the presentation, the technical content and the handling of questions from the audience.
3. Engineering Project Report (80%) – The engineering project report itself is the final document describing the work undertaken. It will be assessed on the quality of the submitted document, the initiative shown by the student, the contribution of the student to the project, the attention paid to the relevant published literature, the presentation of results and the validity of conclusions drawn.

The marking criteria and grade descriptors for this Unit of Study are included in the Appendix to this document.

Unit of Study Program

Engineering Project proposal (Engineering Project A)

The Project proposal (a plan), about two pages in length and similar in format to the specimen appended to these notes, should be written in consultation with your supervisor. The proposal includes a time schedule for the various tasks involved in the project work. In particular, if any workshop time is required (for building experimental equipment etc.), the proposal must include a statement that the job has been discussed with the Workshop Supervisor and the proposed time slot (give dates) and resources allocated to the job must be specified. The proposal must be submitted to your project supervisor by the date specified in the Schedule of Dates above. Failure to submit a satisfactory proposal may result in discontinuation of the course for that semester.

Progress report (Engineering Project A)

The progress report should include an introduction and literature survey in a form similar to that which will appear in the final project report and a report of not more than 1000 words on the work carried out thus far. You should consult your supervisor when preparing this report for advice regarding the content and structure of this document. The progress report must be submitted directly to your project supervisor by the date specified in the Schedule of Dates above. Late submissions will result in a penalty of 2 marks (out of 10) per working day up to a maximum of the mark awarded.

The progress report will be marked out of 10 by your supervisor and the marks will form 10% of the final Engineering Project mark. Progress at this stage should be consistent with approximately 60 hours of work on the part of the student. You must attain a *Satisfactory* grade for *Engineering Project A* in order to progress to *Engineering Project B*. The assessment of *Engineering Project A* is made by means of your regular contact with your supervisor and through the Progress Report. If you do not attain the required grade you will have to repeat *Engineering Project A* in a following semester, but the same topic and supervisor may no longer be available.

Seminar (Engineering Project B)

Honours Thesis and Engineering Project seminar day enables you to present your work to students and staff. Students are required to give a seminar during the semester in which they are enrolled in AMME4122 Engineering Project B. The seminar mark will form 10% of the final Engineering Project mark.

Engineering Project Report draft (Engineering Project B)

A draft of the entire project report is to be given to your supervisor by the date specified in the Schedule of Dates above. The supervisor will comment on the draft and return it within one week at the latest. If you are not able to contact your supervisor for a discussion on the draft by this time you should notify the Head of School.

Final submission (Engineering Project B)

One soft bound copy of the engineering project report is to be handed in **BY THE DATE SPECIFIED IN THE SCHEDULE OF DATES ABOVE AND ONLY AT THE LOCATION GIVEN ABOVE**. The copy must be handed in to this room. Do not submit your project report to your supervisor and do not hand it in to the General Enquiries Office or your submission may not be registered. We will accept double sided printing of the project report document in order to conserve resources.

Please note that printing and binding of the project report typically takes 2 – 3 working days. We strongly recommend that you have the report completed at least one week before the final submission date to allow ample time for printing and binding.

Late submission policy

Late submission of the engineering project report will incur a penalty of 2% per day (including weekend days) deducted from the project report mark. A 1% penalty is applied if the project

report is submitted before noon on the day after the due date. Students should note that this penalty can have a severe impact on grades.

A student who wishes to request a project report submission extension must submit a special consideration form detailing their circumstances, together with a letter of support from their supervisor, to the Head of School. The student must also submit the work they have done so far by the official due date listed in this document. It will be determined at the School's Examiners Meeting if an extension is justified on the basis of the student's progress and circumstances. Reasons other than medical are generally not accepted.

Withdrawing from Engineering Project

A student who wishes to withdraw from Engineering Project must first consult their supervisor. As project is assessed on the basis of work in both Engineering Project A and Engineering Project B, simply discontinuing project may result in a mark of Discontinued not counted as Failure (DNF) or Absent Fail (AF) being recorded against Engineering Project A and/or Engineering Project B. If a student is having difficulty with their supervisor or the topic selected, they should try to resolve differences before considering withdrawing from project. If these issues cannot be resolved, students should consult with the Engineering Project Coordinator or the Head of School.

Time requirement – conflict with jobs

If you have a small number of credit points including Project to complete you should make a formal arrangement with your supervisor to be working in the School for one or two days per week for the full academic year or the equivalent for part of the year.

Plagiarism

The School and wider University policies regarding plagiarism will be strictly enforced.

Engineering Project Guidelines

Typical undergraduate project reports should not exceed 60 pages (approximately 30-35,000 words) excluding the pre-amble such as a title page, abstract, declaration of contribution, acknowledgements, table of contents and references. Appendices may also be included in addition to the 60 page limit but are for peripherally relevant information and are generally not assessable. While the School does not currently maintain a policy with respect to the allowable length or precise format and layout of your project report, you should use 12 point font, a line spacing of 1.5, a left margin at least 3cm, and right margin of at least 2 cm. You should consult closely with your supervisor regarding suitable content, structure and formatting for this document. Students are encouraged to peruse a number of reports or honours theses from previous years (available from your supervisor) to get an idea of acceptable formats and styles.

Please note that you are NOT marked on the length of your report. The best report is easy to read, clear, correct, concise, well argued, and has distilled the work into the most important findings, then analysed and interpreted these with insight. This analysis should be presented within the context of the appropriate literature and prior work in the area.

It is also crucial that you clearly identify which parts of the work are your original contributions and which parts are attributable to others, such as your supervisor, post-graduate students in the same research group, or other Engineering Project A/B team members working on the same project, work reported in the literature, etc. Not to acknowledge others' contributions in your work is a major ethical failing which is unprofessional and may contravene the University's policies with respect to plagiarism. In fact, you benefit from extensive referencing. A lack of references indicates either a lack of awareness of current literature or potential plagiarism. Both of these implications are negative and unprofessional. Extensive referencing is your opportunity to demonstrate that you know how your work relates to others in the field.

Grammar and typographical errors are also likely to detract from the overall effectiveness of your project report. You should consider having an editorial service, friend or relative review your project report for coherence and to help you to ensure that your writing is reasonably free from errors. You should do this before submitting your report draft to your supervisor.

A few resources you may wish to consult as you put the finishing touches on your project report are included here.

There is a thesis library maintained by the School of Aerospace, Mechanical and Mechatronic Engineering. This includes all theses submitted in previous years and is located in Room 444 of the Mechanical Engineering Building. You may sign out prior submissions to have a look over and to familiarise yourself with the structure and content of previous work. Ask your supervisor to recommend prior theses they have been involved with and which they consider to be of a high standard.

The University maintains a site called WriteSite which is designed to help you with academic writing: <http://writesite.elearn.usyd.edu.au/>

The Sydney University Postgraduate Representative Association maintains a thesis guideline. This is intended more for PhD theses but you may find some useful advice contained in this document.
<http://www.supra.usyd.edu.au/assets/file/Publications/SUPRAThesisguide.pdf>

Finally, be sure to consult with your supervisor on their expectation for the project report. The progress report and draft report submission are opportunities for you to get feedback from your supervisor regarding your writing style, the structure and content of your project report.

Statement of student contribution

A substantial portion of the project must be your own work. The engineering project report must contain a single-page summary at the front itemizing in point form your contribution to the work. This should clearly differentiate between your work and that of any current or previous co-workers, supervisor, technicians, and other students. The summary needs to be signed by you and should be co-signed by the supervisor.

e.g.

- *I carried out the literature survey in order to design the burner. The survey (reference) carried out for a similar purpose last year was used as a starting point.*
- *I designed the burner, with assistance from my supervisor. I supervised its construction, which was carried out by M.*
- *I carried out the experiments using the existing wind tunnel and diagnostics. N helped me run the tunnel.*
- *I used the existing data processing software S to reduce the data.*
- *I wrote the subroutines X,Y,Z to fit into the existing programs A and B.*
- *I carried out the analysis. The conclusions are my own, influenced by discussion with my supervisor.*

The above represents an accurate summary of the student's contribution.

Signed..... student(supervisor)

Acknowledgements

Students traditionally acknowledge their supervisor and those who gave support.

Example: **ENGINEERING PROJECT PROPOSAL**

Title: *The Effect of Exhaust System Impedance on the Emissions from an Automobile Engine*

Proposer: *R.A. Darling*

Supervisor: *Professor R.W. Bilger*

Background

Emission regulations in force for cars built after July 1 1976 require that replacement parts to the engine or exhaust systems should be to the original specification, or that the engine and exhaust system be shown to comply to the standard by carrying out an emissions test. Since the full test is prohibitively expensive to carry out for each engine exhaust system combination, the regulation would give a virtual monopoly to the original manufacturer unless a simple test can be devised. A proposed test matches only the back pressure of the replacement muffler as this is thought to have a dominant effect on emissions.

Problem Statement

Determine the effects of exhaust impedance including inductive or reactive components on exhaust emissions.

Method of Attack

It is proposed to purchase and install a six-cylinder car engine of recent manufacture on a dynamometer test bed. The exhaust system is to include provision of mufflers of different designs or no muffler at all, a Helmholtz resonator and a simple restriction valve. Pressure fluctuations at an exhaust port are to be monitored by a high temperature pressure transducer. Emissions of nitric oxide in the exhaust will be measured under a range of engine and exhaust system conditions.

Schedule

This is shown in the attached table. A total of 24 man-days of technician time is estimated including about 4 man days of electrical/electronic work. This has been discussed with and agreed to by the Workshop Supervisor.

Approvals

Date

R.W. Bilger, Supervisor

PROJECT SCHEDULE: R.A. DARLING

TASK	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV
Lit. review	<input type="checkbox"/>								
Engine instn.	<input type="checkbox"/>	<input type="checkbox"/>							
Muffler/reson.		<input type="checkbox"/>	<input type="checkbox"/>						
Instrumentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Prelim. test		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Test					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Analysis					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Reports	<input type="checkbox"/>				<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
Workshop man days	3	7	7	4	1	1	4	0	0



Engineering Project Marking Sheet

Student:	Project title:	Marker:
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CRITERIA		Fail	Pass	Credit	Distinction	High Distinction
ORIGINALITY & PERSONAL CONTRIBUTION ___ / 10%	<ul style="list-style-type: none"> ▪ Demonstrates initiative and ingenuity ▪ Substantial contribution to the development of the project resulting in a comprehensive treatment of the research or design 	<input type="checkbox"/>				
MASTERY OF SUBJECT MATTER ___ / 10%	<ul style="list-style-type: none"> ▪ Critical understanding of key issues ▪ Thorough grasp of underlying concepts and principles 	<input type="checkbox"/>				
INTRODUCTION ___ / 5%	<ul style="list-style-type: none"> ▪ Clearly identifies the problem for investigation and relevant context ▪ Clearly sets out the content and aims of the project ▪ Describes the structure of the thesis 	<input type="checkbox"/>				
LITERATURE REVIEW ___ / 15%	<ul style="list-style-type: none"> ▪ Good knowledge of literature ▪ Relates closely to the problem or hypothesis ▪ Shows awareness of the field, different solutions/implementations ▪ Shows awareness of different types of evidence 	<input type="checkbox"/>				
RESEARCH DESIGN ___ / 15%	<ul style="list-style-type: none"> ▪ Design has been tested ▪ Design conforms to requirements ▪ Is adequately described so that the experiment/design can be replicated by a fellow student ▪ Is well documented 	<input type="checkbox"/>				
RESULTS ___ / 10%	<ul style="list-style-type: none"> ▪ Method of analysis is clearly indicated ▪ Results are presented clearly ▪ Tests on different parts of the design are stated ▪ Discussion of any results (e.g. tables and graphs), clearly labelled, units indicated 	<input type="checkbox"/>				
DISCUSSION ___ / 15%	<ul style="list-style-type: none"> ▪ Results discussed in literature context ▪ Summarising the results, major points of the project 	<input type="checkbox"/>				
CONCLUSIONS ___ / 10%	<ul style="list-style-type: none"> ▪ Conclusions drawn on discussion ▪ Implications of the research / design are described ▪ Explicit contribution of the thesis stated ▪ Potential future work highlighted 	<input type="checkbox"/>				
PRESENTATION, THESIS FORMAT & REFERENCES ___ / 10%	<ul style="list-style-type: none"> ▪ Neat, consistent, well organized ▪ Correct grammar and spelling ▪ Clear and accurate referencing ▪ Relevant references 	<input type="checkbox"/>				



Specific comments (NB: Completing this section is compulsory for marks over 75% or below 50%)

Mark: %	Signed:	Date:
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Note: A second marker may be assigned to assess the engineering project report if there is a marked difference between the marker's assessment and the student's academic record. Comments may be made available to students. Any confidential comments to be considered at the Examiner's Meeting should be included on a separate sheet.



School of Aerospace, Mechanical and Mechatronic Engineering

The following grade descriptors specify the standard of work that is expected in relation to the following grade levels.

Grade Level		Descriptor
High Distinction	(85%+)	<p>Work of exceptional standard. Work demonstrates initiative and ingenuity in research, pointed and critical analysis of material, thoroughness of design, and innovative interpretation of evidence. Demonstrates a comprehensive understanding of the project material and its relevance in a wider context. Demonstrates extensive knowledge and excellent conceptual understanding with well-balanced independent evaluation of the evidence and the opinions of others; original and imaginative treatment with evidence of insight and scholarship; confident and appropriate use of research tools. In particular, a HD project will have strengths in the following areas</p> <ul style="list-style-type: none"> • outstanding command of expression and logical argument in a skilfully structured manuscript • superior evaluation and integration of existing literature • evidence of significant insight and original thought in dealing with the critical issues • sophisticated understanding of research or design methods, with evidence of careful attention to critical design issues in the execution of the project • thoughtful and appropriate choice of data analysis/design methods and outstanding presentation and reporting of results • clear and coherent interpretation of the project data, and/or the results of other studies • comprehensive understanding of the importance of the results in the context of the theoretical framework
Distinction	(75-84%)	<p>Work of superior standard. Work demonstrates initiative in research and reading, complex understanding and original analysis of subject matter and its context, both empirical and theoretical; shows critical understanding of the principles and values underlying the project topic. Comprehensive knowledge of the subject with evidence of independent thinking; appropriate assessment of the evidence used; critical approach to the opinions of others; logical and focused argument. In particular, a D project will have strengths in the following areas</p> <ul style="list-style-type: none"> • the manuscript is well written, logically argued and generally well structured • the evaluation and integration of the existing literature is very sound without being outstanding • reasonable insight and some evidence of original thought in dealing with the critical issues • evidence of a solid understanding of research methods • adequate design of the research project, although possibly containing minor but retrievable errors • choice of data analysis that is appropriate for the design (although less well justified than might be expected of HD standard), and clear presentation of results • generally sound but pedestrian interpretation of results and their importance to the theoretical context
Credit	(65-74%)	<p>Competent work. Evidence of extensive reading and initiative in research, sound grasp of subject matter and appreciation of key issues and context. Engages critically and creatively with the topic and attempts an analytical evaluation of material. Goes beyond a simple presentation of the topic to seeing how material in the literature relates to each other and to the problem at hand. In particular, a C project will have strengths in the following areas</p> <ul style="list-style-type: none"> • generally competently written, although some problems exist in the logical organisation of the text and the way it is expressed • provides an adequate coverage of the literature, although it tends to be



		<ul style="list-style-type: none"> more descriptive than evaluative, and arguments are often disjointed occasional evidence of insight into the issues underlying the project or essay, but little evidence of original thinking basic but somewhat limited understanding of the research or design methods the design of the research project is generally adequate but is marred by errors and oversights serviceable choice of data analysis, although other approaches may have been more appropriate the presentation of results lacks clarity interpretation of results or other studies is adequate but limited
Pass	(50-64%)	<p>Work of acceptable standard. Work meets basic requirements in terms of reading and research and demonstrates a reasonable understanding of subject matter. Some knowledge of the subject but little evidence of independent thinking; unimaginative use of evidence and some useful sources not utilised; some attempt at a logical and focused argument; largely reliant upon secondary material; a very modest contribution to learning. In particular, a P project will be characterized by the following</p> <ul style="list-style-type: none"> the work is not well written and shows flaws in the structuring of logical arguments coverage of the necessary literature is weak, with insufficient information provided to support the arguments made, or conclusions drawn, within the project report little evidence of insight and ideas tend to be highly derivative knowledge of research or design methods is deficient serious flaws exist in the design of the research project making it difficult for the research/design to meet its aims data analysis techniques are arbitrary or inappropriate the results are poorly presented interpretations are superficial, demonstrating a weak understanding of the results and their relevance to the theoretical framework
Fail	(<50%)	<p>Work not of acceptable standard. Work may fail for any or all of the following reasons:</p> <ul style="list-style-type: none"> unacceptable level of paraphrasing irrelevance of content presentation, grammar or structure so sloppy it cannot be understood submitted very late without extension sought from Head of School not meeting the University's values with regards to academic honesty. the work is very poorly written and shows a serious inability to structure and present a logical argument coverage of the necessary literature is inadequate, with little information provided relevant to the claims made, or conclusions drawn, within the project report serious misunderstanding of key concepts and issues knowledge of research or design methods is lacking serious flaws exist in the design of the research project making it difficult or impossible for the research/design to meet its aims data analysis techniques are inappropriate and the results are presented inadequately an inability to show how the results of the research project relate to the theoretical framework; serious misinterpretations of results

HONOURS THESIS/ENGINEERING PROJECT SEMINAR

INDIVIDUAL RESPONSE SHEET

**FINAL
SCORE:...../100**

- This sheet is intended to provide feedback to the speakers on their performance and to contribute to the assessment of the presentation. Please write down the speaker's name and final score in the space provided as well as ticking the box that you think is the appropriate rank for each of the criteria.
- The speaker's final score must solely be based on the seminar presentation and NOT the honours thesis/engineering project progress.
- Please fill out a separate sheet for each speaker and deposit it in the box provided at the back of the auditorium at the end of each talk.
- The average of the Undergraduate Student marks contributes 20% to the speaker's final mark. The average of the Academic/Teaching/External Examiner/Postgraduate marks contributes 80% to the speaker's final mark.

	Poor	Average	Good	VGood	Excellent	Comments
TECHNICAL CONTENT (matter)	<input type="checkbox"/>	_____				
ORGANISATION OF PRESENTATION (method)	<input type="checkbox"/>	_____				
EFFECTIVE USE OF AIDS (technique)	<input type="checkbox"/>	_____				
SPEECH DELIVERY (manner)	<input type="checkbox"/>	_____				
INTEREST GENERATED (credibility)	<input type="checkbox"/>	_____				
HANDLING OF QUESTIONS (confidence)	<input type="checkbox"/>	_____				

ADDITIONAL COMMENTS:

.....

ASSESSMENT: SPEAKER'S NAME:

.....

YOUR NAME (print)..... (sign).....

- Your Position (please tick)
- Academic / Teaching Staff / External Industrial Examiners
 - Postgraduate Student
 - Undergraduate Student

Seminar Grade Descriptors

Excellent – (High Distinction - 85 to 100)

Demonstrates an extremely sound knowledge and understanding of the seminar topic and issues in a rigorous, comprehensive and sophisticated manner. Communicates in an extremely organised and effective manner, (academic & professional) extensively using relevant and appropriate presentation aids (audio-visual and other as appropriate), thus displaying an exemplary standard. Delivery of seminar is extremely confident and clear and engages audience interest to an exemplary level. Demonstrates extremely well developed ability to interpret and answer questions in a way that adds great additional insights into the seminar topic.

Very Good – (Distinction - 75 to 84)

Demonstrates a very good knowledge and understanding of the seminar topic and issues in a rigorous, comprehensive and sophisticated manner. Communicates in a highly organised and effective manner, (academic & professional) using a very high level of relevant and appropriate presentation aids (audio-visual and other as appropriate), thus displaying a very good standard. Delivery of seminar is very confident and clear and engages audience interest to a very good level. Demonstrates very well developed ability to interpret and answer questions in a way that adds very useful additional insights into the seminar topic.

Good – (Credit - 65 to 74)

Demonstrates a good knowledge and understanding of the seminar topics and issues in a rigorous, comprehensive and sophisticated manner. Communicates in a well organised and effective manner, (academic & professional) extensively using a high level of relevant and appropriate presentation aids (audio-visual and other as appropriate), thus displaying a good standard. Delivery of seminar is confident and clear and engages audience interest to a good level. Demonstrates a well developed ability to interpret and answer questions in a way that adds useful additional insights into the seminar topic.

Average - (Pass - 50 to 64)

Demonstrates an adequate knowledge and understanding of the seminar topics and issues. Communicates in a reasonably organised and effective manner using relevant and appropriate presentation aids (audio-visual and other as appropriate), thus displaying an acceptable standard. Delivery of seminar displays adequate confidence and clarity and engages some level of audience interest. Demonstrates a fair ability to interpret and answer questions in a way that adds some additional insights into the seminar topic.

Poor – (Fail - 0 to 49)

Demonstrates poor knowledge and understanding of the seminar topic and issues. Does not communicate in an acceptable academic and professional manner. Does not display acceptable levels of material organisation and/or effective presentation manner. Does not use relevant and appropriate presentation aids (audio-visual and other as appropriate), thus displaying an unacceptable standard. Delivery of seminar displays inadequate confidence and clarity and engages only a low level of audience interest. Demonstrates an inability to interpret and answer questions in a way that adds additional insights into the seminar topic.