



THE UNIVERSITY OF  
**NEWCASTLE**  
AUSTRALIA

# **FINAL YEAR PROJECT**

## **ADVICE FOR INTERIM REPORT AND SEMINAR**

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School of Engineering



ELEC4840A

ELEC6840A MENG4800A ELEC4840

Seminar and Interim Report: Pass required

- 80% technical.
- 20% presentation.
- Two markers: one is supervisor, one other academic.
- Schedule will be released on Week 13. Check Canvas announcement.

# ADVICE FOR SEMINAR

## General Info:

- 20 minutes: 15 minute presentation, 5 minutes for questions and answers
- Rough guideline: 2 minutes per slide
- Avoid overuse of PowerPoint effects
- Relevant pictures better than words
- Rubric (Available on Canvas)
- Practice it

### Presentation Style *(i.e. how well was the information presented?)*

Evaluation Criteria	Score	Comment
Quality of slides and other presentation aids	/10	
Clarity of spoken word	/10	
Ability to convey technical concepts	/10	
Appropriate length of presentation	/10	
Response to questions	/10	

### Presentation Content *(i.e. how well is the project progressing?)*

Clearly defined scope	/ 10	
Understands the significance / context / contribution of this project	/ 10	
Understands necessary background concepts	/ 10	
Progress / outcomes achieved	/ 10	
Evaluation of schedule for remainder of project	/ 10	

**TOTAL (/100)**



# SEMINAR



## What happens on the day?

- Two markers, one of them is your supervisor.
- Sessions start at 9.30 am. Presentations are open to all students and staff.
- 4 students per session, one of them would be the chair.
- Role of the session chair:
  - Introduce the presenter.
  - Time keeper:
    - 15 mins presentation + 5 mins questions.
    - Give warning to speakers when there is 3 minutes left for his/her presentation.
- Students should attend as many presentations as possible to support your peers.
- Audiences can ask question at the end of each presentation.

# ELEC4840A / ELEC6840A / MENG4800A

## Interim Report: Pass required

- 80% technical.
- 20% presentation.
- Supervisor is the marker.
- Report should be written in a way that you can reuse it in your final report, especially the literature review.
- **Submit on Canvas.**

## Grading

- Pass/Fail, no mark given on transcript. You will receive an “NA” (not awarded).

## Important remarks

- Have to complete Part B (ELEC4840B/6840B) within the next semester.
- Check your current progress with supervisor.



# INTERIM REPORT (PART A)



## Example - Table of Contents

- Abstract
- Acknowledgements
- List of Contributions
- Introduction
- Literature Review
- Theory and Principles
- Results and Discussions (if any)
- Proposed Methods and Plans
  - Gantt Chart
- Conclusions
- References

# REPORT



## Abstract

- First part of your report that most people read.
- You want to make sure it's not the last thing they read.
- 1/3 to 2/3 of a page, stand-alone text that provides a snapshot of your whole report/thesis.
- After having read your abstract your reader should be able to answer the following questions.
  - What did the researcher do in their research?
  - What were the reasons for doing the research? What questions was the researcher trying to answer?
  - How did the researcher go about finding out the answers? What methods did they use?
  - Why are these results important? What is their significance?

## Introduction

- Establish your territory. What is the topic about?
  - State general topic and give some background.
  - Explain (without the whole literature review) why there needs to be further research on your topic.
- Introduce the current research (make hypotheses; state the research questions)
  - State the research aims and/or research objectives.
  - Outline the order of information in the thesis.

# REPORT



- You can also combine introduction and literature review as one chapter.

## Introduction

- Establish your territory. What is the topic about?
  - State general topic and give some background.
  - Provide a review of the literature related to the topic.
- Establish a niche (show why there needs to be further research on your topic).
  - Outline the current situation.
  - Evaluate the current situation (advantages/ disadvantages) and identify the gap
- Introduce the current research (make hypotheses; state the research questions)
  - Identify the importance of the proposed research.
  - State the research aims and/or research objectives.
  - Outline the order of information in the thesis.



# REPORT

## Literature Review

- What is it?
  - An evaluation of previous research on your topic.
- What needs to be included?
  - **Minimum:** well-established research in the field; most recent relevant research.
- How do I organise it?
  - Some POSSIBLE approaches, which can be combined:
    1. Organised around key themes or debates
    2. From distant to close; from less specific to more specific
    3. A methodological approach, following the different methods used in your field.

You're  
expecte  
d to  
show  
that:

You can recognise the relevant and important research in your field.  
you can understand this research, by organising and evaluating it.  
you can see where there is a gap in the research which your study will attempt to fill.

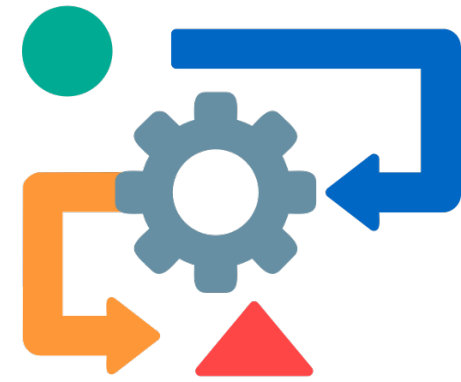
Referenc  
e System

IEEE style

- “The particle filter method has been used to ... [1 2].”



# REPORT



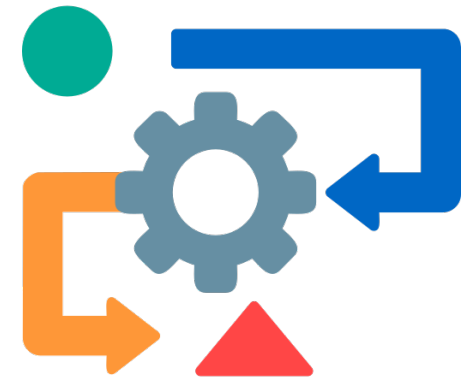
## Theory and Principles (Methods)

- Finally you get to write what you have done!
- Discuss with your supervisor.
- Example of topics
  - The concept used to model a physical system.
  - Derivation of a model.
  - Descriptions of circuits or software.

## Implementation of ... (Part B, Part 0)

- Examples
  - How did you undertake the theoretical analysis/simulation/construction/ experimental works/ software development?
  - How did you build?
  - What software did you write?
  - How did you conduct the experiments?
    - How did you measure the output voltage/current?

# REPORT



## Theory and Principles (Methods)

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- Example of topics
  - The concept used to model a physical system.
  - Derivation of a model.
  - Descriptions of circuits or software.

## Proposed Methods and Plans (Part A)

- Discuss what you are going to do for Part B.
  - Methods?
  - Prototype?
  - Testing?
- Plan and timeline
  - Gantt Chart
    - Charts to show goals and tasks that have completed in the past few months.
    - Charts to show future tasks.

# REPORT



## Results and Discussions

- As a logical response to the research questions or problems you are trying to answer or solve.
- This section is the most important section because it is where you give meaning to your results. Don't just present results without discussing them.

### 1. What does your discussion section do?

- Explains what the results mean;
- Interprets the data;
- Compares it with other research;
- Evaluates its importance;
- Points out the limitations of your research;
- Raises questions for future directions.

What  
information  
does the  
reader  
expect to  
find?

How your research relates to your aims;  
How it confirms your aims;  
An explanation of your results;  
How your research relates to theory or previous research;  
The significance of your research;  
Limitations or improvements that could be made to your research.

What  
information  
will you  
include?

A summary of the key findings;  
how these relate to your aims;  
confirmation of your aims;  
comparison with theory/previous research;  
explanation of unexpected results;  
significance;  
limitations/future directions.



# REPORT

## Conclusions and Future Work



- What should be in the conclusion?
  - **Conclusions:** concise statements about your main findings, related to your aims/objectives/hypothesis.
  - **Contributions to your field of research,** stating/restating the significance of what you have discovered. Can include limitations.
  - **Future research:** where to go from here (can include where NOT to go, if your research demonstrated that a particular approach or avenue was not useful).

### Technical Content.

Poor grasp of the elementary principles	0	1	2	3	4	5	6	7	8	9	10	Thorough lit-review, and well understood
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Requires 3 lines of code	0 1 2 3 4 5 6 7 8 9 10	Challenging cross-disciplinary work
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Simply relying on one application note	0	1	2	3	4	5	6	7	8	9	10	Applying novel/elegant techniques/approaches
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In appropriate construction, e.g. proposes a 100A switch in a mW application	0 1 2 3 4 5 6 7 8 9 10	Aware of the limits of techniques proposed
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Essentially nothing achieved so far	0 1 2 3 4 5 6 7 8 9 10	Well advanced, e.g. Simulations & prelim. PCB schematics ready /requirements & design complete ready for implementation &testing
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No evidence of goal setting or planning	0 1 2 3 4 5 6 7 8 9 10	Realistic goals / shows evidence of aims met
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$Subtotal = \sum (A \rightarrow F)$	/60
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One dodgy website	0 1 2 3 4 5 6 7 8 9 10	Cites the major books and papers in the field
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50 pages in – no idea what was actually done	0	1	2	3	4	5	6	7	8	9	10	Clear, concise, and logical report structure
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Poor figures etc., or no discussion about them	0	1	2	3	4	5	6	7	8	9	10	Effective, interesting figures that contribute
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Full of sentences which don't finish	0	1	2	3	4	5	6	7	8	9	10	Grammar/spelling correct, terms defined.
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$Subtotal = \sum (H \rightarrow K)$	/40
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$Tot = 20 * \left(\frac{L}{40}\right) + 80 * \left(\frac{G}{60}\right)$	/100
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