



**MONASH** University

**Thesis Title**

Author's full name

Student's academic degrees

A Thesis Submitted for the Degree of Master of Engineering Science at  
**Monash University** in 2022

Department of ...

Faculty of Engineering

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I hereby declare that this thesis contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

This thesis includes (*insert number*) original papers published in peer reviewed journals and (*insert number*) submitted publications. The core theme of the thesis is (*insert theme*). The ideas, development and writing up of all the papers in the thesis were the principal responsibility of myself, the student, working within the (*insert name of academic unit*) under the supervision of (*insert name of supervisor*).

(The inclusion of co-authors reflects the fact that the work came from active collaboration between researchers and acknowledges input into team-based research.) *Remove this paragraph for theses with sole-authored work*

In the case of (*insert chapter numbers*) my contribution to the work involved the following:

*(If this is a laboratory-based discipline, a paragraph outlining the assistance given during the experiments, the nature of the experiments and an attribution to the contributors could follow.)*

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## Acknowledgements

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*Free text section for you to record your acknowledgment and gratitude for the more general academic input and support such as financial support from grants and scholarships and the non-academic support you have received during the course of your enrolment. If you are a recipient of the "Australian Government Research Training Program Scholarship", you are required to include the following statement:*

*"This research was supported by an Australian Government Research Training Program (RTP) Scholarship."*

*You may also wish to acknowledge significant and substantial contribution made by others to the research, work and writing represented and/or reported in the thesis. These could include significant contributions to: the conception and design of the project; non-routine technical work; analysis and interpretation of research data; drafting significant parts of the work or critically revising it so as to contribute to the interpretation.*

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# Abbreviations

**LAH** List Abbreviations **Here**

# Constants

$$\text{Speed of Light } c = 2.997\,924\,58 \times 10^8 \text{ ms}^{-2}$$

# Symbols

$a$	distance	m
$P$	power	W ( $\text{Js}^{-1}$ )
$\omega$	angular frequency	$\text{rads}^{-1}$

# Chapter 1

## Introduction

### 1.1 Writing a thesis

Writing a thesis is a lengthy process, often requiring multiple redrafts and revisions.

Drafts should be provided and reviewed on a regular basis to keep up momentum as the submission deadline approaches. Please ensure that all required milestones and program requirements (e.g., professional development hours) have been completed before progressing with your submission.

The information below has been provided to you to make your experience as easy as possible. You may also like to refer to the Graduate Research Thesis Examination Procedures for further insight into the thesis examination process.

#### 1.1.1 What format the thesis will be presented

The first thing to consider is in what format the thesis will be presented. We recommend students and main supervisors discuss this as early as possible, and jointly agree on the most appropriate option:

Traditional thesis: A similar format to research reports and papers where the research question is proposed, methodology is described and the results are discussed and conclusions established.

Thesis including published works: Overall format is the same as a traditional thesis but particular chapters will include any submitted publications. Some Faculties have their own criteria for what can be included in this format.

All theses must use the approved thesis preliminary pages which includes compulsory information such as copyright and authorship declarations. If these pages are not presented correctly, the thesis will not be dispatched to the examiners and the relevant sections will need to be amended.

### **1.1.2 Examiners**

At Monash each graduate research student has a supervisory team. Of this group, the main supervisor is responsible for approaching potential examiners for their students' thesis. Initial discussions normally take place at the student's final milestone review and it is recommended that examiners are approached at least 4-6 weeks before expected submission.

An email template is available for use when inviting potential examiners to examine a thesis.

For students enrolled in a Live Music or Theatre Performance degree, the main supervisor will also need to complete a Nomination of Examiners form. This form will require the approval of the Program Director (or delegate) and the Monash Graduate Research Office prior to the live performance. For further information please contact the Faculty of Arts.

In addition, when considering appropriate examiners, please note that if an examiner is subject to Sanctions laws, we are unable to provide payment for their thesis examination.

### **1.1.3 Conflict of interest**

There are a range of circumstances that could result in a conflict of interest, potentially restricting the objectivity of the examiners.

Some examples of what we consider conflicts of interest are:

- Involvement in the student's research, including supervision of the candidate in field or laboratory work or elsewhere during candidature.
- Previous work in the same department within an institution as the candidate.
- A previous appointment as an academic staff member at Monash University, including an adjunct academic appointment, during the student's period of candidature.
- Holding the position of emeritus or adjunct professor at Monash.
- Substantial contact with the candidate in any other circumstance which might jeopardise the independence of the examination.
- Being a close associate (spouse/partner, other relative, friend or business partner) of either the candidate or the supervisor of the candidate.

There is a more comprehensive list of grounds for conflicts of interest which you may wish to review.

## **1.2 Thesis including Published Works**

All doctoral and research master's students are permitted to submit a thesis including published works, in accordance with section 1.9 of the Graduate Research Thesis Examination Procedures. The thesis including published works is not a different degree; rather, it is a thesis format that includes papers that have been submitted, or accepted, for publication, during the course of the student's enrolment in the relevant graduate research degree at Monash.

The thesis must reflect a sustained and cohesive theme, and framing or substantial linking text is normally required in introducing the research and linking the chapter/papers/manuscripts. The papers do not have to be rewritten for the thesis. For guidance, refer to Text Framing the Publications (as below).

Whether the papers are required to have been published, accepted for publication, or only submitted for publication varies across faculties (see Faculty Requirements below). We advise you to consult good examples of theses including published works in your



discipline. Your academic unit or school should have copies of all doctoral and research master's theses available for consultation. Workshops on the thesis including published works are also run through the Skills Essentials series, if you require more information.

### 1.3 The maximum word length

For references see [Graduate Research Thesis Examination Procedures](#)

PhD: 80,000 words, 100,000 words for students enrolled prior to 1 January 2015

MPhil: 35,000 words, 50,000 words for students enrolled prior to 1 January 2015.

### 1.4 Using Figures and Tables, and other commands

We have defined several commands in thesis.cls file for easier usage:

```
\newcommand{\fref}[1]{Figure~\ref{#1}}
\newcommand{\tref}[1]{Table~\ref{#1}}
\newcommand{\eref}[1]{Equation~\ref{#1}}
\newcommand{\cref}[1]{Chapter~\ref{#1}}
\newcommand{\sref}[1]{Section~\ref{#1}}
\newcommand{\aref}[1]{Appendix~\ref{#1}}
\renewcommand{\topfraction}{0.85}
\renewcommand{\bottomfraction}{.85}
\renewcommand{\textfraction}{0.1}
\renewcommand{\dbltopfraction}{.85}
\renewcommand{\floatpagefraction}{0.75}
\renewcommand{\dblfloatpagefraction}{.75}
```

You can use *fref* and *tref* to refer a figure and table, such as Figure [1.1](#) and Table [1.1](#). Refer a citation like this [\[1\]](#). You can cite multiple references once, like this [\[1–3\]](#).



FIGURE 1.1: My Picture Demo

TABLE 1.1: Table Demo.

Description	Images	
Training	Taking 3 knowns + 1 known unknown randomly	2900
Gallery	Taking 3 images of knowns randomly	1830
Probe C	C=S	4903
Probe O1	O1	6264
Probe O2	O2	8972
Probe O3	O3	10333

1.5 A Section

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## Chapter 2

# Including a published pdf as a thesis chapter

In a thesis including published works, some chapters may simply involve including an external (published) `.pdf` file into your thesis document.

The following sample shows how to insert a subset of pages of a `.pdf` in such a way that the page numbering of the thesis is also added to the included `.pdf` pages. It also scales and translates the inserted `.pdf` file to fit within the margins of the thesis.

## Monash University Procedure

<b>Procedure Title</b>	Graduate Research Thesis Examination Procedures
<b>Parent Policy</b>	Graduate Research Thesis Examination Policy
<b>Date Effective</b>	21-June-2018
<b>Review Date</b>	29-June-2019
<b>Procedure Owner</b>	Vice-Provost (Faculty and Graduate Affairs)
<b>Category</b>	Academic and Quality Standards
<b>Version Number</b>	2.1 ( <i>Minor amendments effective 6 October 2021</i> )
<b>Content Enquiries</b>	<a href="mailto:mgro-thesisexams@monash.edu">mgro-thesisexams@monash.edu</a>
<b>Scope</b>	<p>This procedure applies to:</p> <ul style="list-style-type: none"> <li>• All campuses and teaching locations.</li> <li>• All graduate research courses, including joint or dual awards.</li> <li>• All current graduate research students.</li> <li>• All former students who have been approved by the Graduate Research Committee to submit their thesis under lapsed enrolment, in accordance with section 3 of the Graduate Research Re-Admission Procedures.</li> </ul>
<b>Purpose</b>	<p>This procedure outlines the processes for submitting and examining a thesis submitted to meet in part or in full the requirements of a higher degree by research at the University.</p> <p>It also outlines the process for calculating an examination outcome based on the recommendations of the examiners appointed to examine a thesis.</p>
<b>PROCEDURE STATEMENT</b>	

### Purpose of this procedure

1. This procedure outlines the processes for submitting and examining a thesis submitted to meet in part or in full the requirements of a higher degree by research at the University.
2. It also outlines the process for calculating an examination outcome based on the recommendations of the examiners appointed to examine a thesis.

### Structure of these Procedures

3. The procedure comprises the following sections:
  - Section 1: Preparation of the thesis
  - Section 2: Thesis submission

## Monash University Procedure

- Section 3: Dispatch of thesis, duration of examination and student status while under examination
- Section 4: Appointment of examiners
- Section 5: Assessment of theses
- Section 6: Examination recommendations and outcomes
- Section 7: Thesis archival
- Section 8: Award of degree

### Section 1: Preparation of the thesis

#### 1.1 Eligibility to submit a thesis for examination

4. In order to be eligible to submit a thesis for examination, a student must have submitted any outstanding paperwork relating to their enrolment, including Return to Study forms etc. AND satisfactorily completed all:
  - coursework and/or training requirements of their degree.
  - progress milestones applicable to the degree in which the student is enrolled, as set out in the [Graduate Research Progress Management Procedures](#).
5. The examination of a thesis submitted by a student who has yet to submit outstanding enrolment paperwork or who has not completed all required coursework and/or training or progress milestones will not commence until those requirements have been satisfactorily met.
6. The examination of a thesis submitted by a student who is subject to a discipline proceeding as defined under Part 7 of the Monash University (Council) Regulations or an unsatisfactory progress proceeding as defined under Part 6 of the Monash University (Council) Regulations will not commence until these proceedings are complete and only where the student is permitted to continue their enrolment at the University.
7. A student whose examination remains pending will remain enrolled at the University and subject to any fees where applicable.
8. A former student will only be permitted to submit their thesis in accordance with **section 3** of the [Graduate Research Re-admission Procedures](#). In such cases, the thesis will only be accepted for examination where the former student agrees to be subject to the statutes, regulations, policies and procedures of the University as amended from time to time.

#### 1.2 Length of thesis and additional requirements

9. The word length for a thesis **excludes** footnotes, references, appendices, equations, tables, diagrams or other illustrations.
10. Where footnotes are included as in-text citation - that is, within the body of the thesis, as required by some disciplinary and citation conventions – students are to ensure that they are not excessive, and clearly support the argument of the thesis, for example, by verifying evidence.
11. A student will be approved to exceed the maximum word limit only under exceptional circumstances.
12. In such cases, a request must be submitted by the Head of Academic Unit (or delegate) to Graduate Research Committee (GRC) via email [mgro-thesisexams@monash.edu](mailto:mgro-thesisexams@monash.edu) at **least three months** in advance of the thesis being submitted for examination, preferably as an outcome of the student's Pre-

## Appendix A

# An Appendix

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