

UNSW AUSTRALIA  
SCHOOL OF MATHEMATICS AND STATISTICS  
MASTER OF STATISTICS (8750) / FINANCIAL MATHEMATICS (8161)  
POSTGRADUATE COURSEWORK PROJECT - GUIDELINES

## 1 Introduction

The project is a compulsory part of any masters coursework program, and is worth 12 Units of Credit (UoC). It involves writing a thesis, i.e. a coherent written exposition of a chosen topic. The project gives the student an opportunity to make practical use of the knowledge gained through their masters program, and to learn to work independently. It prepares the student for the problem-solving and report-writing aspects of future employment, or for progression to a research degree. The thesis could include a literature survey and a critical analysis of the topic area, or could be a small research project.

## 2 Admission

The project is taken in the last semester of the program<sup>1</sup> or after completing at least 48 UoC (typically, 8 courses). Progression to the project is subject to academic performance: students seeking to enrol in the project are normally required to have attained a Weighted Average Mark (WAM) of 70 or higher in their first 8 masters courses. Students who do not attain a WAM of 70 or higher in their first 8 courses will normally be awarded with the Graduate Diploma in Mathematics and Statistics (program 5659).

In any case, enrolment in the project is conditional on the approval of the program authority, i.e. the Director of Postgraduate Studies (Coursework), and is subject to appropriate supervision resources being available.

## 3 Supervision

Each student works under the supervision of one academic staff member, who must be a member of the School of Mathematics and Statistics.<sup>2</sup> The supervisor is expected to help select (and modify, if necessary) the project topic, direct the student to useful references on the topic, help explain difficult points, provide adequate feedback on the progress of the project (both in terms of the timing and comments), read and comment on drafts of the thesis, and give general course advice. The student is expected to generate much of the direction for the project, and is assumed to be able to work independently for most of the time.

Members of the School are flexible about the range of areas in which they will supervise students. Prospective students should start talking to staff members about possible topics as early as possible. Ideally, a decision as to the supervisor and the topic should be made before the project semester starts. This would facilitate a smooth start with the project. Supervision by individual staff members is conditional on staff agreement.

## 4 Timeline

At the start of the project semester, students should enrol in MATH5925 ('Masters project') as part of their program.<sup>3</sup> Then, they should fill in **Form 1** ("Nomination of thesis topic and supervisor")<sup>4</sup>, get it signed by their supervisor, and return it to the Director of Postgraduate Studies (Coursework) by the end of Week 2 of the first project semester.

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<sup>1</sup>For part-time students, the project semesters must be consecutive.

<sup>2</sup>In certain circumstances, when it is in the obvious interest of the project, a co-supervisor may be appointed. The co-supervisor can be another School staff member, or an academic from another UNSW School/Faculty. Joint supervision must be approved by the Director of Postgraduate Studies (Coursework).

<sup>3</sup>Part-time students should enrol in MATH5001 or MATH5002, as appropriate.

<sup>4</sup>Forms can be downloaded from the School website.

Students need to obtain approval from their supervisor to submit their thesis, prior to submission, by completing **Form 2** (“Approval to Submit the Masters Thesis”). By the end of Week 10, that form, signed by the supervisor, must be returned to the Director of Postgraduate Studies (Coursework). Theses submitted without the approval of the supervisor as attested by Form 2, will not be assessed. Students should ensure that their supervisor has sufficient time in which to provide feedback on drafts of their thesis prior to Week 10. Students who do not get their supervisor’s approval for submitting, will normally be awarded with the Graduate Diploma in Mathematics and Statistics (program 5659).

The due date for submission of the thesis is normally **4.00PM on the final day of Week 13 of the project semester**.

After consultation with the supervisor, the Director of Postgraduate Studies (Coursework) may approve an extension of time to submit the thesis (no greater than 4 weeks) on the grounds of illness, accident, disability, bereavement or other compassionate circumstances that have affected a student’s work in more than in a minor way.<sup>5</sup> In granting the extension, the Director of Postgraduate Studies (Coursework) is to ensure the length of the extension is commensurate with the time the student was unable to work on their project and the extension does not unduly advantage the student over those who submitted in accordance with the initial deadline. Importantly, late thesis submission, even when approved by the Director of Postgraduate Studies (Coursework), is likely to delay the student’s graduation for one semester. Due to sponsorships and visa requirements, international students are required to gain approval from UNSW SDI (Student Development International) prior to the extension request.

If the thesis is submitted late with no good reason, the following rule will be applied. The final project mark  $F$  will be calculated as

$$F = \begin{cases} R & \text{if } R < 50, \\ 50 + (R - 50)e^{-0.03 \times n} & \text{if } R \geq 50, \end{cases}$$

where  $R$  is the recommended mark before taking lateness into account, and  $n$  is the number of days that the thesis is overdue.

In agreement with the above, the students should conform to the following timeline.<sup>6</sup>

Before the start of project semester	Talk to staff members about potential project topics, select supervisor
By the end of Week 2	Return Form 1 to Director of Postgraduate Studies (Coursework), nominating the supervisor and formalising the topic
Weeks 2-6	Research, reading, discussion and understanding of the topic
Around Week 7	Outline of project and significant piece of writing
Around Weeks 8-9	Give substantial draft to supervisor for approval of submission
By the end of Week 10	Return Form 2 to Director of Postgraduate Studies (Coursework), attesting the supervisor’s approval for submission of the thesis
Weeks 12-13	Oral presentation of the thesis (see Section 6 below)
4.00PM, Friday, Week 13	Submission of the thesis

<sup>5</sup>This does not apply to anything that affects a student’s work. For instance, the University expects that employment related matters will not affect a student’s study. Anything related to a student’s social or sporting life is also not included.

<sup>6</sup>For part-time students, this timeline should be adapted pro rata.

## 5 Thesis format

The thesis should be in 12pt font, singly-spaced (or one-and-a-half spaced). Typically, a thesis should be between 40 and 60 pages in length.<sup>7</sup> Students are strongly encouraged to write their thesis in LaTeX. Students not conversant with this software should allow a certain amount of time to become familiar with it. In order to standardise the theses, the following skeleton LaTeX file has been created to help students get started:

- `unsw-sms-masters-thesis-template.tex`

This LaTeX template should be used to produce the thesis. It works in conjunction with the following UNSW crest files and UNSW thesis style file (adapted for the School):

- `unsw-crest.pdf`
- `unsw-crest.eps`
- `unswthesis.cls`

(these files need to be saved in the same folder as `unsw-sms-masters-thesis-template.tex` for correct compilation.)

The above template organises the thesis as follows:

- A cover page, showing (1) the UNSW crest; (2) the full title of the project; (3) the name of the student; (4) the name of the supervisor; (5) “School of Mathematics and Statistics, UNSW Australia”; (6) the month and the year of submission; (7) “Submitted in partial fulfilment of the requirements of the degree of” the degree;
- The plagiarism form, where the student declares that the thesis is their own work (see Section 7);
- (optional) A statement acknowledging the extent and nature of any assistance received in the pursuit of the project;
- An abstract, concisely describing the content, scope and results of the project;
- A table of contents;
- The thesis body, organised in several chapters (including an introduction and a conclusion);
- A reference list, including all the references cited in the thesis and arranged alphabetically by author.

Students are required to submit three copies of their thesis, in a protective binder or cover, to the School office by the set deadline. They should also email a soft copy (in pdf format) to the Director of Postgraduate Studies (Coursework) by the same deadline. Copying and binding of the thesis are the student’s responsibility. It is the student’s responsibility to allow sufficient time before the submission deadline of Week 13 for copying and binding to occur and to keep a copy in case of accidental loss. The bound copies are forwarded to reviewers for assessment.

## 6 Assessment

The thesis will be assessed for quality in four major areas, each of which being equally important:

- Exposition: structure and presentation of the thesis, including definition of the problem, organisation of the argument, clarity in terms of writing style and illustrative materials;
- Literature coverage: sufficient introductory and summary material, position of the topic in a wider context, review and critique of relevant literature in the field;

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<sup>7</sup>In certain circumstances, when it is in the obvious interest of the project, the thesis can be shorter or longer. This should be discussed with and approved by the supervisor and the Director of Postgraduate Studies (Coursework).

- Critical analysis and insight: understanding of the problem and/or model, justification and implementation of the appropriate method and techniques, quality of the discussion (analysis and interpretation), appropriateness of conclusions and recommendations;
- Originality: new contribution by way of modifying or extending earlier methods, by developing new examples, or by application to a new area.

Normally, the thesis will be assessed by two reviewers, one being the supervisor and the other being another academic member of the School nominated by the supervisor.<sup>8</sup> Both reviewers will provide a written assessment and mark based on the above criteria. Each mark contributes 40% toward the final project mark.

### **Oral presentation**

Typically in Weeks 12 or 13 of the project semester, the student gives an oral presentation of 20 minutes on their thesis to staff members of the School, interested visitors and other students. A short session of Questions & Answers follows. The exact timetable for the presentations is set up around Week 11.

The presentation is worth 20% of the final project mark. The presentation will be assessed on: engagement; knowledge displayed; motivation presented for the study of the topic; description of contributions/achievements; description of results; clarity of verbal discussion; clarity of slides/figures; keeping to time; and responses to questions.

## **7 Fraud and 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, website, 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.

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 University has policies on academic honesty and plagiarism which all students should familiarise themselves with, see:

<https://student.unsw.edu.au/plagiarism>

The Learning Centre website is the main repository for resources for staff and students regarding plagiarism and academic honesty. These resources can be located at the aforementioned url. 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.

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<sup>8</sup>The reviewer's name has to be kept confidential from the student until the examination process is complete and the reviewer has indicated their approval to be identified.

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 their thesis.

## **8 Additional information**

Please contact the Director of Postgraduate Studies (Coursework)

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