

Guidelines for Marking of MA/MSc theses

Notes for Examiners, Assessors, Supervisors and Students

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Abstract

The purpose of this document is to advise examiners and assessors of the criteria for various grades for the following Masters theses:

- 120 point Masters Thesis in Mathematics or Applied Mathematics. This is the product of a one year, full-time research project, or part-time equivalent.
- 90 point Research portfolio in Mathematics. This is the product of a one-year 3/4-time research project, or part-time equivalent.

1 The Masters thesis at Auckland

From the University of Auckland Masters Handbook:

A masters thesis is the outcome of independent research, scholarship and/or creative activity conducted under supervision. It is distinguished by the relevance of the arguments or creative work to your discipline, the quality of the evidence collected or the design or performative principles deployed and the light the thesis sheds on current disciplinary concerns and interests.

The work entailed in producing a thesis is a sustained effort constituting a course weight of 90 points or greater.

A masters thesis need not necessarily embody an original contribution to knowledge and practice in the discipline, but it must demonstrate your ability to:

- master theoretically sophisticated subject matter;
- identify and evaluate critically relevant literature and other forms of information;
- design a well-structured, relevant and integrated plan of research;
- implement the plan using appropriate methods of investigation and analysis;
- analyse, argue and reach conclusions that are informed by independent inquiry and other available information;
- engage in rigorous intellectual analysis, criticism and problem solving;
- express your ideas in a clear and accurate form, and written in the accepted style of the subject.

2 The Masters examination process

There are two examiners and one assessor for each thesis, at least one of whom is external to the University of Auckland. The supervisor is permitted to be an examiner.

2.1 Role of Examiners

Examiners are required to read the thesis and provide, in a timely manner, an independent report on the thesis. Examiners do not confer with each other about the thesis or their reports. Each examiner report should recommend a **grade range**, such as “A to A+”, or “B- to B” etc.

2.2 Role of the Assessor

The assessor is provided with copies of the examiners reports and the thesis. The role of the assessor is to consider the examiners reports and thesis in order to ensure that their evaluation of the thesis has been fair and reasonable. The Assessor is required to prepare a brief written report (usually less than one page) and suggest a final grade for the thesis. If the two examiners agree as to the quality of the work and the recommended grade, it is normal for the assessor to confirm their judgement. If the grade ranges initially recommended by the examiners do not intersect then the assessor must discuss the validity of the examiners grades. There is no need for the assessor to communicate with the examiners.

On the basis of the Assessor's recommendation, the Postgraduate Committee then determines a final grade and recommends this grade to the Head of Department.

2.3 Grades

The grading system used by the University of Auckland is a range from A+ to C- (with maximum grade A+) or Fail. Masters degrees can be awarded with honours.

Grades	Honours
A+ A A-	1st class Honours
B+	2nd class Honours, 1st division
B B-	2nd class Honours, 2nd division
C+ C C-	No class of Honours
D+ D D-	Fail

2.4 Independence of Examiners

- Examiners work independently and do not confer or see each other's reports.
- Examiners must not disclose the contents of their report or the recommended grade to the student, the other examiner or, even if not an examiner, the student's supervisor.
- Reports and recommendations should be returned confidentially to the Postgraduate Advisor.

2.5 Confidentiality of Reports

The University recognises that students will often be anxious to find out the reasons for a grade and such requests are considered on a case by case basis. Upon request by a student, the Academic Head will prepare and provide to the student a statement of reasons for the decisions. If the Examiners and Assessor agree to waive the confidentiality of their reports, the University will consider releasing reports, with or without deletions. In such cases, as the assessment is a collective decision of the examiners, assessor and the University, the reports will not normally be released unless, for example, all involved have waived the promise of confidentiality.

Examiners or Assessors who do not wish their reports to be made available to students should include a statement to the effect that “This report is supplied to the University of Auckland on the condition that the report shall be held in confidence by those involved in the examination process”.

3 Examiner's Report

The examiner's report is expected to be around two or three pages long and it should briefly address the following questions. The format is with subsections corresponding to the four items listed below.

In addition, the supervisor is encouraged to comment on the level of independence of the student.

1. **Knowledge of subject** (weighting 35%)

- (a) What is the subject area of the thesis, and what problem/question is it about? Has the student clearly stated this? Has the student indicated how this subject area is situated in a wider context?
- (b) Has the student identified the relevant literature?
- (c) Has the student read the literature carefully, critically and thoroughly?
- (d) Does the thesis provide evidence that the student has achieved a mastery of very advanced or theoretically sophisticated subject matter? (Keep in mind here the distinction between the 120 point Masters Thesis and the 90 point Research Portfolio.)

A grade in the A-range for this component will usually require strongly positive answers to all questions, though the interpretation of "theoretically sophisticated subject matter" will depend on the subject area and the specific research project. Moderate omissions of literature and/or minor misunderstandings of the subject material will usually lead to a grade in the B-range for this component. Serious omissions of literature and/or major misunderstandings of the subject will lead to grades in the C-range or lower.

2. **Originality, interpretation and analysis** (weighting 35%)

- (a) What does the student actually do in the thesis? Has the student clearly stated this?
- (b) Is this an ambitious topic or an easy one? (Keep in mind here the norms for the subject area, and the distinction between the 120 point Masters Thesis and the 90 point Research Portfolio.)
- (c) Has the student designed and carried-out a well-structured, relevant and integrated plan of research?
- (d) Has the student analysed, argued and reached conclusions that are informed by independent inquiry and other available information?
- (e) Has the student made an original contribution? Does the thesis provide evidence that the student has a capacity for creativity and originality?

A grade in the A-range for this component will usually require strongly positive answers to all questions, though the interpretation of "original contribution" will depend on the subject area and the specific research project. In certain branches of Pure Mathematics it will not be expected that any original contribution will be made, while in certain branches of Applied Mathematics it will be impossible to get an A-grade for this component without some original content. Grades in the B-range will be given if there are significant (but not serious) flaws in methodology and/or the conclusions are weak and/or the arguments are not fully supported. Serious flaws in methodology, failure to draw conclusions, lack of analysis will lead to grades in the C-range or lower.

3. **Organisation of material** (weighting 15%)

- (a) Does the thesis explain the topic well?
- (b) Is the thesis structured in a logical and coherent way?
- (c) Is appropriate background to the subject given?
- (d) Are examples, graphs, figures etc well-chosen and helpful?

Positive answers, or very minor flaws, for all questions would result in a A-grade for this component. Positive answers to only some of the questions, or moderate flaws, would result in a B-grade for this component. Major flaws for most of the questions would lead to C-grades or lower for this component.

4. **Style and presentation** (weighting 15%)

- (a) Is the thesis written in the accepted style of the subject?
- (b) Are the typesetting, graphs, figures etc of a professional standard?
- (c) Is the referencing good? Is the bibliography of a professional standard?
- (d) Are there relatively few typographical errors?

Positive answers, or very minor flaws, for all questions would result in a A-grade for this component. Positive answers to only some of the questions, or moderate flaws, would result in a B-grade for this component. Major flaws for most of the questions would lead to C-grades or lower for this component.

3.1 **Final grade ranges**

An overall grade in the A-range (i.e., first class honours) will only be given to a student who has demonstrated at least one of:

1. A mastery of very advanced or theoretically sophisticated subject matter.
2. An original contribution to the topic (subject to the constraints and cultures of the discipline).
3. Conclusions, supported by a high quality of analysis and argument, and reached by independent inquiry and other available information.

An A+ grade will normally require an original research contribution, typically of publishable quality.

Overall grades in the B-range will be awarded to a thesis that is of good quality, but that does not achieve excellence in either knowledge of the subject or originality/interpretation/analysis. Grades in the C-range, or below, will be awarded to a thesis that fails to achieve a high standard for the majority of the criteria.

Note that the minimum grade for entry into the University of Auckland PhD programme is B+, and that to obtain a University of Auckland PhD scholarship it would usually be necessary to have an A or A+ grade.

3.2 **Grading of the 90-point research portfolio**

The 90 point research portfolio is to be marked using the same criteria and weighting as above. However, since this project is the outcome of 3/4 the effort of a Masters thesis, the expectations about the scale and ambition of it are lower. Nevertheless, first class honours will still require that the portfolio demonstrates at least one of the three bullet points in the previous section (i.e., mastery of very advanced subject matter; an original contribution; high quality of analysis and argument) and an A+ grade will still require an original research contribution.