MSc Orientation

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Postgraduate research

- Objectives are to show that:
  - You can work independently on a significant project
  - Master a topic in detail
  - Work in a methodical and scientific manner
  - Present your results or findings in a professional manner
  - (…training for more research… e.g. PhD)
From undergrad to postgrad

- (Possibly) 1st time you’ve not had
  - Regular lectures
  - Assignments
  - Hand-in deadlines
  - Exams
  - Class mates
Research as a postgrad can be

- Lonely
- Disorientating
- Confusing
- Frustrating
- Very rewarding
- …
Thesis research

To gain the most from the experience you need to

- Structure
- Plan
- Discipline yourself
- Motivate yourself
- Support
How to be successful as a postgrad

For all types of research projects/theses

1. **Commitment**
   - Work every day, “It’s like a job”, persistence
   - Always stay in touch with your supervisors

2. **Development**
   - Good programming skills
   - Know how to use tools and best practices
   - Independent problem solving, persistence

3. **Reading and Writing**
   - Willing to read & analyze a lot of related work
   - Writing skills: spelling/grammar/style
Postgraduate myths

- My supervisor will do the hard work
- I’ll have plenty of time to write my dissertation/thesis
- I will be able to do other stuff (work, travel, studies) on the side
The CS Dept. & you

- The CS Dept. provides:
  - A desk
  - Access to computing facilities
  - Access to the Internet and printing (to a limit)
  - Technical support (to a limit)
  - A supervisor (at least one)
You & your supervisor

- This relationship is crucial

- You should meet regularly
  - Once a week or so

- Quality time is important
You & your supervisor

You should:

- Go to meetings with a list of items that you want to address
- Take notes
- Share notes with your supervisor on a weekly/fortnightly basis via google docs for example
- Give your supervisor something in writing to review, a few days before the meeting
- Make a date and time for the next meeting
- Keeping google docs documents updated and open for read/edit from your supervisor
You & your supervisor

Your supervisor will:

- Provide you with general guidance
- Give you some suggestions
- Give you feedback on your writing
- Encourage you
- Criticize your work (based on years of experience supervising other students and doing research)
You & your supervisor

Your supervisor is NOT expected to:

- Do work for you
- Give you a step-by-step plan
- Debug your code
- Correct your English
Writing a dissertation/thesis

- Keep a research diary or journal
  - Record what you read (and surf)
  - Take notes when you read
  - Record what activities you do each day
  - Jot down ideas
  - Periodically read back through your journal
- Do not leave bibliography to the end
  - You may find you overlooked some interesting work
  - Do one literature review a week (takes 2-4 hours)
Your dissertation/thesis

- The hardest thing you’ve ever done?
- The thesis is the goal
  - If your computer program is 100% perfect
  - But you don’t explain it in an academically-credible way

YOU FAIL !!!

- There is no 2nd chance
Your dissertation/thesis

- Do not leave the writing until the end
  - Perfect code + poor diss/thesis = fail
  - Poor code + good diss/thesis = pass
- Write regular reports at each stage
- Give them to your supervisor (even if he/she doesn’t ask for them)
- They will become the basis of your dissertation/thesis
Writing a dissertation/thesis

- Give each chapter to your supervisor, one at a time
- Write chapters in this order:
  - Background
  - Design
  - Implementation
  - Evaluation
  - Conclusions
  - Introduction

Finally, write the abstract and title!
Writing a dissertation/thesis

- Before submitting, ask a friend to proof read your work
  - You might offer to proof read theirs!
- Do a spell-check and a grammar check
- Don’t assume that the examiners will “figure out” or be willing to guess at what you mean
  - If I concentrate on English I cannot read the science behind your work
- Be absolutely confident that you haven't plagiarized anything
  - Plagiarism is an automatic FAIL
- You may use scientific editing help from University
The examination

VERY IMPORTANT

- The other examiner
  - Does not know you
  - Has never seen your computer program
  - Doesn’t know you’re an A+ student
  - Judgement is made **ONLY** on your dissertation
The University’s expectations

- Dissertations at The University of Auckland will vary from discipline to discipline, but in all cases successful dissertations/theses will be expected to demonstrate
  - Evidence of independent thought
  - Confident handling of theoretically sophisticated material
  - An ability to evaluate critically the findings and discussion in the relevant literature
  - An ability to engage in rigorous analysis, criticism and problem-solving
  - Mastery of the conventions of the discipline at a high level
Getting Help

- The Centre for Learning and Research (CLeaR) has lots of help available: [http://www.clear.auckland.ac.nz](http://www.clear.auckland.ac.nz)
- Also the Student Learning Services: [http://www.library.auckland.ac.nz/student-learning](http://www.library.auckland.ac.nz/student-learning)
Any problems 😞

1. Talk to your supervisor first! (You can have two supervisors, even from different departments)
2. Then talk to Patrice (independent & confidential)
3. Talk to the Graduate Centre
4. You can change supervisors midway
Planning a thesis

- Plan (and keep to it)
- Work backwards from submission date
  - 2 weeks for binding
  - 1 months to revise your second draft
  - 1 month to write a second draft
  - 2 months to write a first draft
  - 1 month for evaluation
  - 3 months for coding, data collection, theorem-proving etc.
  - 1 month for design
  - 1 month for literature review
  - 1-2 months to decide on topic
  - ~ 14 months – you must overlap some tasks!!!
Submission deadlines

- Deadlines (full time)
  - Start 1\textsuperscript{st} semester, deadline = 28\textsuperscript{th} Feb
  - Start 2\textsuperscript{nd} semester, deadline = 14\textsuperscript{th} July
  - Start 1 December, deadline = 30\textsuperscript{th} November

- Deadlines (part-time)
  - Part-time students get an extra year to complete
  - Check for deadline: https://www.calendar.auckland.ac.nz/en/genregs/gen-postgrad/masters.html
Extensions and suspensions

- Extensions and suspension are granted by the Dean of Science with departmental recommendation.

- Both require evidence of exceptional circumstances (*not foreseeable, extraordinary, outside of your control*).

- Extensions can be granted for 2 or 3 months and further tuition fees are payable.

- Suspensions can be for one or two semesters.
- Harder to get (extension).
- If you are struggling with your research, sort this out asap with your supervisor.
Thesis submission

- The "Guide to Theses and Dissertations" tells you how to *submit* a thesis to the Graduate Centre.
- 2 non-bounded copies of your thesis to the Graduate Centre
- Submit a digital copy to the Graduate Centre as well
- Give your submission *receipt*, the 2 non-bound hardcopies, and 1 e-version to the Patricia
Graduation

- The examination can take from 3 to 6 months so you may **not** be able to graduate in May if you submit after the 28 February deadline.

- You will **not** be able to graduate in September if you submit after the 31\textsuperscript{st} May deadline.

- You can apply to graduate on Student Services Online only after you have received your final grade.
The examination

- Two examiners read your thesis
  - Your supervisor cannot be an examiner or assessor
  - One of the examiner’s is external to the University
  - Each Examiner writes a report, and recommends a grade
- A nominated assessor and the MSc coordinator (now known as the PG examiner’s committee) reconciles the reports and decides on a final grade
- The Postgraduate Dean of Science and the Graduate Centre sign off on the grade
The Pathway to the final bound copies?

- The University requires that you take into account the examiner’s comments to modify your originally submitted MSc thesis.
- Your supervisor needs to confirm he has verified your changes and is happy with the final version of the thesis.
- Submission of 2 bound copies to deposit in the General Library.
- The Department requires 1 bound copy for the departmental library.
- The Department will reimburse you for the cost of binding 2 copies,
  - if you present your receipt from the University Bindery to the MSc Administrator for repayment and evidence of your bank account number.
- Your MSc supervisor may want to keep one copy: it is a nice gift 😊
Acknowledgements

- Modified by Patrice (28/2/2017)
- Modified by Patrice (15/3/2016)
- Modified by Patrice (24/06/2015)
- Modified by Patrice/Christof (18/3/2014)
- Merged Hons and MSc Orientation slides (13/3/2012)
- Modified by Beryl Plimmer (9/3/2012)
- Modified by Patrice (1/3/2011)
- Modified by Christof Lutteroth (22/3/2010)
- Modified by Gill Dobbie (19/3/2009)
- Modified by Clark Thomborson (28/4/2008)