



THE UNIVERSITY
OF AUCKLAND

FACULTY OF SCIENCE

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

- 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 (CLearR) has lots of help available: <http://www.clear.auckland.ac.nz>
- Also the Student Learning Services:
<http://www.library.auckland.ac.nz/student-learning>
- Student Health and Counselling services:
<https://www.auckland.ac.nz/en/for/current-students/cs-student-support-and-services/cs-personal-support/cs-health-services/cs-clinic-contact.html>

The Centre for Learning and Research in Higher Education



Academic development courses and workshops

Covering all aspects of teaching and learning, both generic and discipline-specific.



IT training

Enrol online for workshops in popular software applications.



New academic staff

Programmes, events and peer-mentoring partnerships for staff who are new to University teaching.



Student learning support

Describing the student learning support services available on campus.



Postgraduate Certificate in Academic Practice

A higher education teaching certification for academic staff.



Doctoral Academic Career Module

DACM prepares mid-phase doctoral students for life in academia.



Tutors, GTAs and Demonstrators

Workshops and support resources for tutors and demonstrators.



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 months 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 1st semester, deadline = 28th Feb
 - Start 2nd semester, deadline = 14th July
 - Start 1 December, deadline = 30th 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 31st 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 😊



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