Orientation

Bachelor of Science (Honours) and Postgraduate Diploma in Computer Science

Prof Jim Warren

School of Computer Science

THE UNIVERSITY OF AUCKLAND
FACULTY OF SCIENCE

Welcome!

- You've made a great choice!
- This is a highly research-active school
  - Largest concentration of CS academics in New Zealand
  - World class – you can go anywhere from here!
  - We love what we do, and really look forward to you joining us!

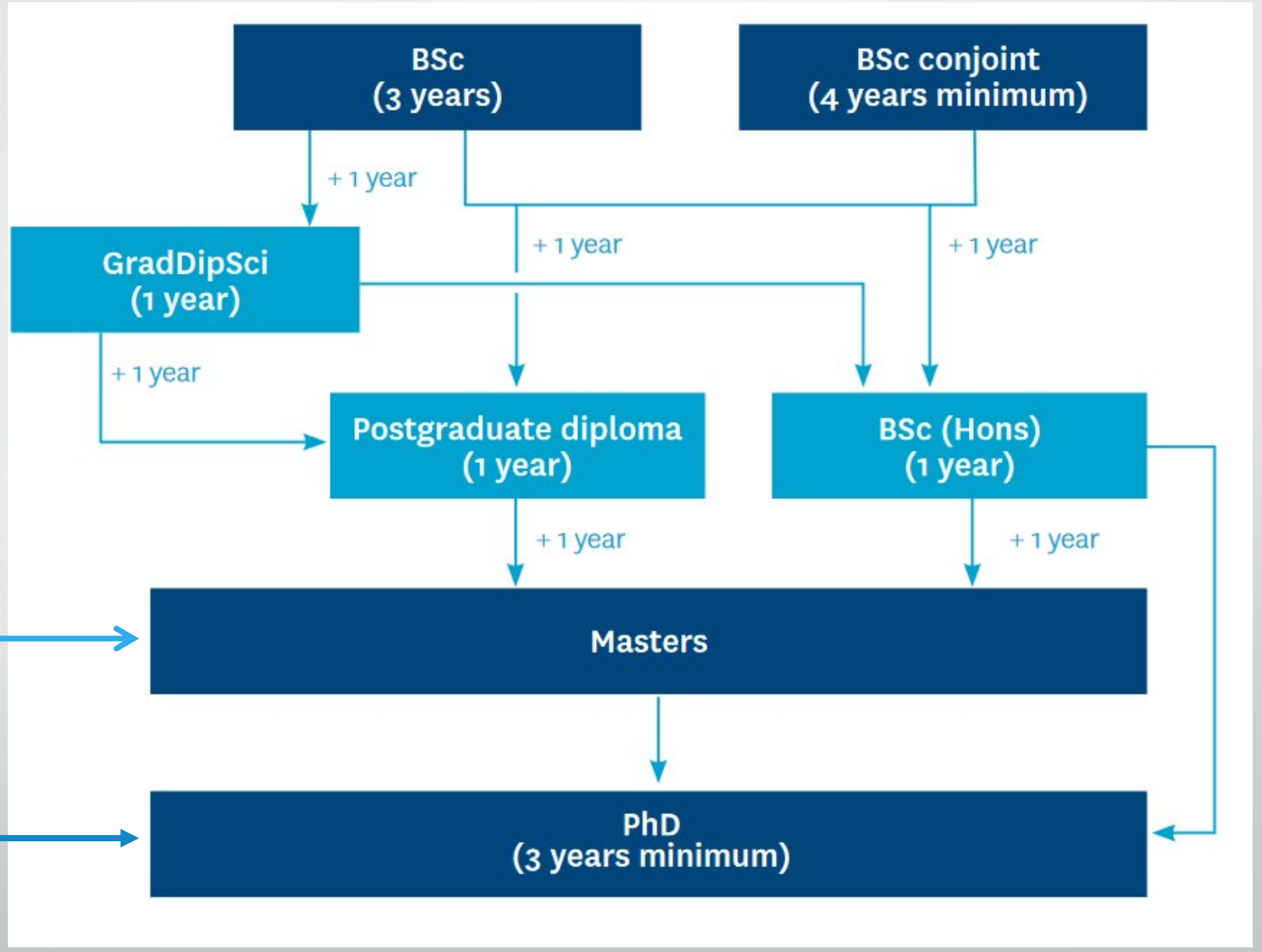
Who we are

- We're here to help with any questions and guide you through the process of doing honours year
- We approve your supervision, non-standard electives, and (ultimately) dissertation results
- We monitor progress through the year

Marc Vinyals, deputy coordinator

Jim Warren, coordinator
jim@cs.auckland.ac.nz

Bachelor of Advanced Science Honours, BASH
(4 years, includes honours)



Getting the right information

- We aim to keep the information at https://www.cs.auckland.ac.nz/courses/compsci789as1c/ up to date
  - Includes enrolment process, how to find a supervisor, and dissertation deliverables
- Programme info at https://www.auckland.ac.nz/en/science/about-the-faculty/school-of-computer-science/programme-information-supplementary-guides.html
  - Includes the official degree requirements for BSc(Hons), PGDip (and some other postgrad options)
  - The Uni has been reorganizing its web pages – the BSc(Hons) PDF from the programme info page copies some of the info from the compsci789 page
- Electives are listed at https://study.auckland.ac.nz/ords/r/uoa/catalogue/plan?p7_code=COMP-BSc(Hons)

The course of study

- One-year study (Full Time), Two-year study (Part Time)
- BSc(Hons) Dissertation COMPSCI789A and COMPSCI 789B in consecutive semesters
- Six other 15-point papers from COMPSCI701-716, 720-763, 765-768, 770-777, BIOSCI700
  - ICT courses COMPSCI 717-719 are NOT part of that list
  - COMPSCI 764 and 769 are reserved for Master of AI students
  - Current options linked at https://study.auckland.ac.nz/ords/r/uoa/catalogue/plan?p7_code=COMP-BSc(Hons)
- May substitute one or two 700-level papers from other related disciplines
- Make sure you have not taken any paper listed as a restriction
  - Some stage 3 papers overlap with their 700 level counterparts
- If you don't have the recommended preparation for a course you really want, talk to the course lecturer, but also talk to your dissertation supervisor about alternatives

Supervision confirmation

- You must have an academic staff member willing to supervise you on an agreed topic
  - See https://www.cs.auckland.ac.nz/courses/compsci789as1c/#enrolment
  - A signed supervision form is no longer required (but I'll take one if you've done it)
  - However, you do need at least an email from the staff member clearly indicating that they've agreed to supervise your dissertation
  - Then complete the Faculty Expression of Interest (as linked from above URL)
- Your offer of a place in the BSc(hons) is provisional until you have an approved supervisor
- Happy to help you with finding a supervisor
  - You have to find a willing supervisor for an agreed topic – this may require some compromise. We have over 50 research-active staff, but that still doesn't cover every possible Computer Science topic.
  - See https://www.cs.auckland.ac.nz/courses/compsci789as1c/#enrolment for links and further advice

Postgraduate Diploma

- Very similar to honours, except
  - Normally you just do 8 15-point COMPSCI electives
    - You don't need to do a dissertation
    - So, you don't necessarily (or normally) have a supervisor, and you don't need a supervisor to start the degree
- **Optional** 30 or 15 point dissertation/project
  - You can do a 30-point dissertation (COMPSCI 691a and COMPSCI 691b)
    - Same expectations as for honours dissertation
  - Or you can do one 15-point project, COMPSCI 780
  - 691a/b and 780 are subject to an academic staff member wanting to supervise you
- But just taking coursework electives is the most usual option
  - Two of your electives can be outside COMPSCI with our approval (e.g. STATS, INFOSYS, DIGIHLTH)
  - INFOSYS 735 Cloud Computing Architecture is a cool semester 2 option

Bachelor of Advanced Science (Honours) – BASH

- Unlike Bach Sci (Hons) students, as a BASH student you may well have already done some 700-level coursework prior to your dissertation
- You no longer need to complete a Supervisor Confirmation Form, however, please do email me (jim@cs.auckland.ac.nz) or have your supervisor email me with a clear message confirming their agreement to supervise you
  - I can then approve the concession from COMPSCI 789a and b

Expectations for the dissertation

- Research proposal
  - To make sure you've gotten started
- Presentation
  - In our 3-Minute-Thesis (3MT) format day, or as a short seminar to a group arranged by you and your supervisor
- Research diary
  - To promote and document consistent work pattern
- Dissertation
  - The final deliverable

Proposal

Deadline 5pm Monday on week 5 of your first semester

- Submit by email to jim@cs.auckland.ac.nz
- Length: 2-5 pages
- Contains
  - Preliminary title of your dissertation.
  - Research questions and goals (What do you plan to investigate? What do you aim to achieve?)
  - Motivation and background (Why is the topic worth investigating? What others have done in this area?)
  - Research methods (How do you plan to complete your work? What theories/ideas/tools do you need to carry out your work?)
  - Plan (Specify the time for weekly meetings with your supervisor(s); expected activities/outcome for each month)
- Important! Make sure that the proposal is agreed on by both your supervisor and yourself. Get your **supervisor's signature** on the front page before submission (or they can send an email to me indicating their support)

3-Minute-Thesis (3MT)
Presentation Day (Thursday, 16 July 2026)

- **Save the date!**
- Quick pitch of your topic
  - Audience of fellow honours students and a panel of staff/experts
  - Panel will award some prizes
- Your presentation should have a beginning (motivation/problem statement), middle (approach/methods) and 'end' (findings so far, what you're planning to do next)
  - Chance for audience questions after your pitch
- More details to follow after we've established numbers and support
- If you can't make the 3MT, then you must organise a seminar with your supervisor

Seminar Presentation

by end of Week 10 of your second semester (COMPSCI789B)

- Length: Normally 20 minutes presentation (i.e., typically 8-15 slides) plus Q&A.
- To be arranged with your supervisor
- May be to the whole school, or to a more focused research group to which your supervisor belongs
- Opportunity to shares your experience
- Provides a chance for feedback just before you finish your dissertation write-up
- Optional if you did the 3MT

Research Diary

Due 5pm on Monday after the last day of lectures in your second semester

- Submit by email to jim@cs.auckland.ac.nz
- One entry per week (dated, 33 weeks – you can have some weeks off)
- You can go for a brief weekly-note format, or if you wish you can make it more of a notebook/journal of your work
- If you go for the longer format, you might include
  - Communications with supervisors
  - Progress on reading/programming
  - Examples/Sketches/Figures
  - Issues/Challenges
- The content of the research diary should justify that you spent 10 hours per week on the dissertation topic

Dissertation

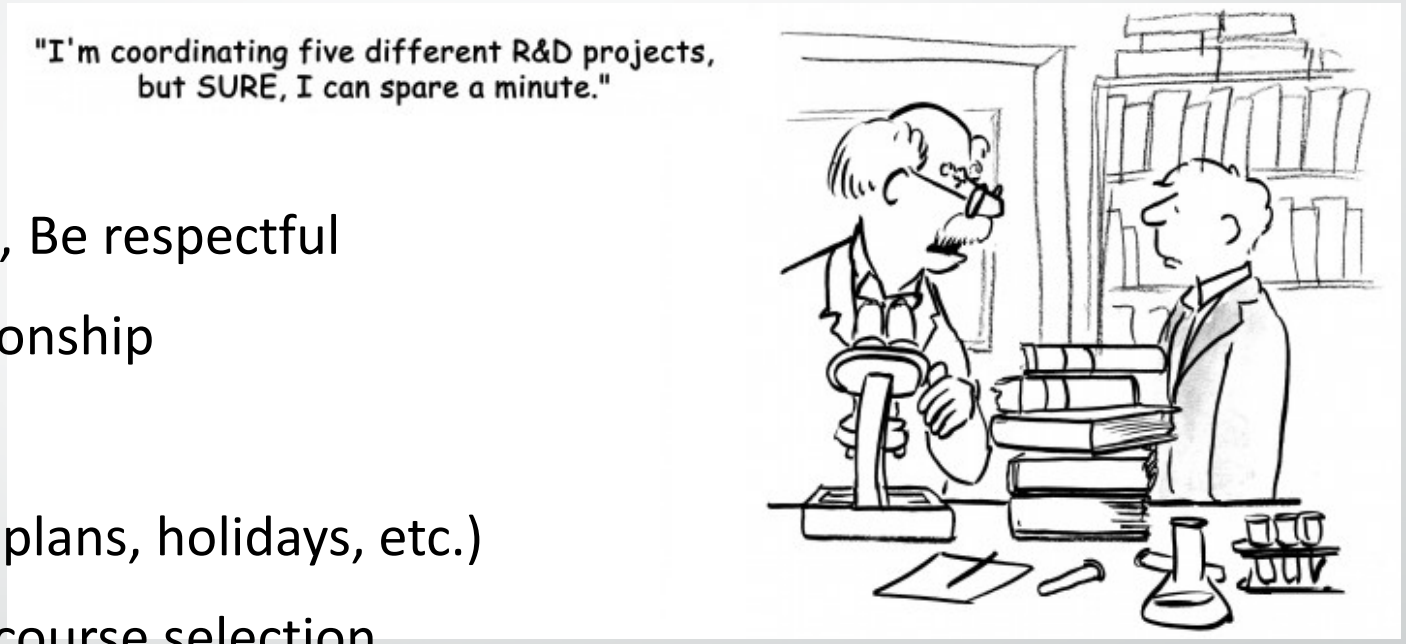
Deadline the last day of exams in the semester of your enrolment in COMPSCI789B

- Your supervisor sets the standard: format, length, writing style, references, contents, structures, etc.
- Submit by sending PDF file to sciencepg@auckland.ac.nz
  - Good idea to cc your supervisor and the honours coordinator
- No extension unless EXCEPTIONAL cases (and requires enrolment in the extension course, COMPSCI 789x) (apply via https://www.auckland.ac.nz/en/science/current-students/postgraduate-students/extensions.html)
  - It is your responsibility to meet this deadline and submit your work on time
  - Failing to meet the deadline can result in you **not getting the degree**

Dissertation:
Style and Format

- Length: Length of dissertations varies and it is essential that you consult your supervisor
  - As a general guide the University specifies that a 30-point dissertation is around 10,000–12,000 words
  - This is only a general guide. Sometimes in CS we might express more with equations, or graphs and other figures, and have a lower word count
- The recommended page size is A4
  - Beyond this, any formatting and reference style that your supervisor is happy with is fine
- We only expect dissertations in electronic format - no printing or binding

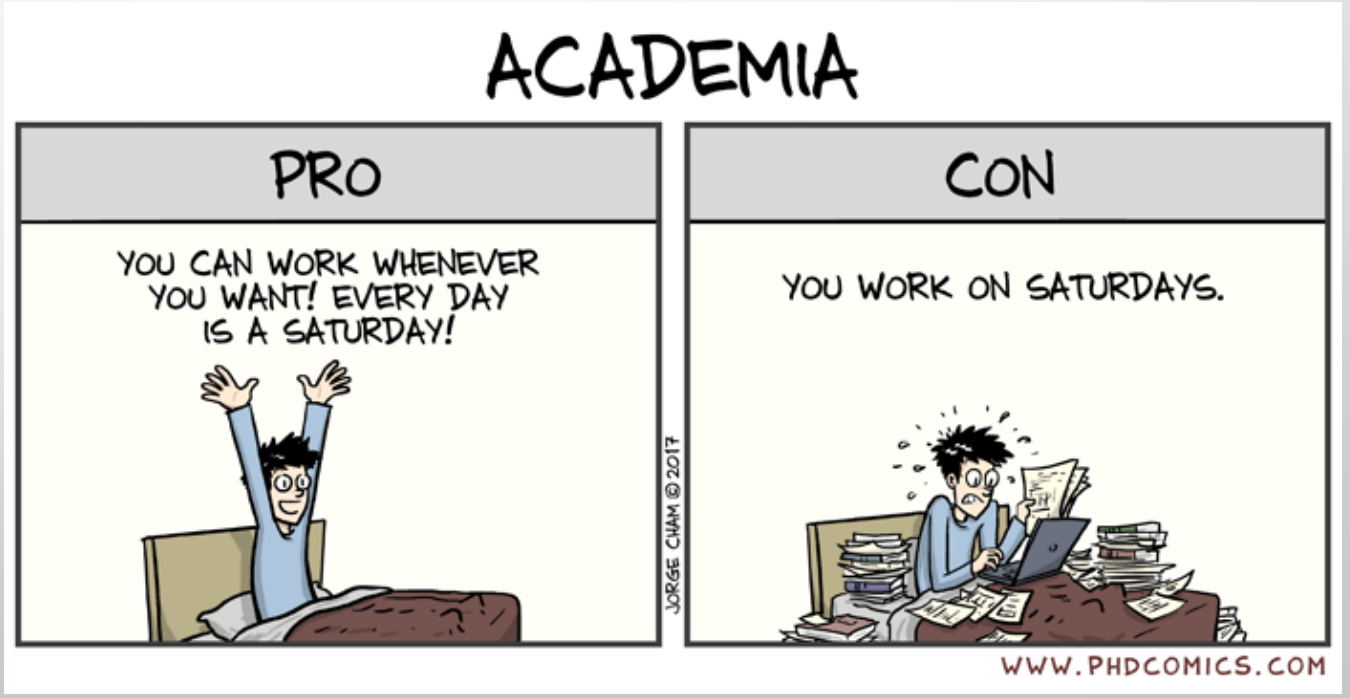
Managing your relations with your supervisor



- Be proactive, Be communicative, Be respectful
  - Develop a long-lasting relationship
- **Set up a weekly meeting time**
- Keep your supervisor informed (plans, holidays, etc.)
- Ask your supervisor about your course selection
- Create a shared workspace (e.g. dropbox and/or Overleaf project) with your supervisor

Dissertation objectives

- **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)



Facilities

- You will get access to a shared or 'hot' desk (any specialized computing is up to arranging with your supervisor)
  - Probably will take a few weeks to sort the desk allocation – let me know if you are or are NOT especially interested in desk space (and New Market or City/303S)
  - Some staff have 'labs' with dedicated space and equipment and may want you to work there
- Access to the 303 level 4 common area
  - Space to meet, eat or just loiter
  - Use of refrigerator, microwave, boiling water, sink for wash up (sorry, you have to bring all your own cups, dishes, cutlery)

Enjoy the journey!

- Forge lasting relationships with your classmates, labmates, supervisor and other staff
- Learn skills to launch your career, and that you'll return to and build upon throughout your career