

Research Methods
comp4809/7809

Passing this course

- Pass both components
- Lecture attendance
 - Attend at least 10 lectures
 - 2 marks per lecture = obtain 20 marks
- Deliverables
 - Submit all deliverables
 - Obtain at least 50% (i.e., 40/80 marks total)

What?
So What?
Now what?

What:
This semester in review

What was this subject about?

- What *you need to do* to achieve an excellent project
- Research methods
- Habits, deliverables, progress

What are research methods?

- Domain-specific research practices
 - Tools & techniques
 - Methodology
 - Analysis
 - Demos
- Generic research skills
 - Project planning
 - Reading, literature reviews
 - Writing
 - Seminars, posters, demos
 - Time management

	Deliverables	Week
1	Project title and project description	2
2	Annotated bibliography	3
3	Project plan	4
4	Research question and project introduction	5
5	Progress report draft	6
	*** Progress report ***	7
---	<i>Easter break</i>	---
6	Elevator pitch	8
7	Seminar outline and draft of seminar slides	9
8	Preliminary results or pilot studies	10
	*** Seminar week ***	12
9	Research methodology and analysis	11
10	Project review and time-line for semester 2	13

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Dealing with literature

- What literature?
 - Peer reviewed research
 - Relevant studies
 - Facts that are widely known in the field
 - Studies that have a bearing on your research
- Keeping good records
 - Reference list
 - Annotated bibliography
 - Exact quotes with citation info

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Project stages

- Exploration
 - Consider different project topics
 - Explore the literature, methods
- Execution
 - Focus on one topic
 - Generate the results
- Closure
 - Close off options
 - Complete

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Introductions

1. Establish field
 - a. Assert centrality
 - b. State current knowledge
2. Summarise previous research
 - a. Outline issues in literature
3. Prepare for present research
 - a. Indicate a gap
 - b. Raise a question
4. Introduce present research
 - a. State purpose
 - b. Outline present research

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Making your research presentable

- Elevator pitch
 - Engage someone quickly
 - Explain why they should care
 - Explain what you're doing
- Poster session
 - ...same principles...

Making your research presentable

- Giving a seminar
 - Engage the audience
 - Give enough detail
 - Be prepared for questions
 - Especially the ones you set-up
- Don't forget you get to do it again...

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Methodology & Analysis

- Most methodology is specific to your area of study, *but*
 - There are other people in your area of study
 - Learn from them, adopt existing approaches, research methods of doing things
- Some methodology is common across areas

Non-deliverables

- Tools
- Giving and receiving feedback
- Time management

Tools

- Development environment
- Version control
- Backup system

What is feedback?

- Feedback is any form of comment on your ideas or written work.
- It can help you improve your work in many ways:
 - by assisting you to see your work through the eyes of a reader,
 - pointing out errors or ambiguities,
 - or suggesting corrections.

Using feedback

- Skilful use of feedback involves considering every comment that reviewers make
- Every comment needs to be resolved:
 - a. agree and implement
 - b. disagree and seek to understand why the comment was made: Could the description be improved? Was it obscure or ambiguous? Is there a difference of opinion in the field?
 - c. don't implement and seek to resolve in a different way: Is the suggestion outside the scope of the thesis?

Time management

- Time management
- Space management
- Information management
- Self management

So What: Achievements and learning

Learning research by doing it

- Finding and defining a topic
- Presenting a seminar
- Demonstrating your work
- Completing a project report

- Read the assessment criteria!

Reflection

Things that went well

Things to do differently

Now What: Timeline to completion

Progress Report	• Submit Project Progress Report	20 April, Week 7 of 1st semester	15%
Half-time seminar	• Present seminar • Attend 5 other seminars	14-18 May, Week 11 of 1st semester	15%
Poster and Abstract	• Submit poster and 250 word Abstract	5 Oct, Week 10 of 2nd semester	-
Thesis	• Submit thesis	24 Oct, Week 13 of 2nd semester	50%
Presentation / Demonstration	• Present your work to your Examiner and Supervisor	25 Oct, Week 13 of 2nd semester	20%

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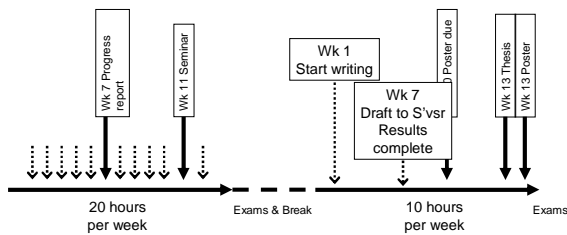
Poster Design

- Global structure
 - Using effective structures
- Communication of message
 - What is the overall goal of the research
 - What were the specific aims
 - What were the results
 - What is the significance of the results

Thesis

- What's a thesis?
 - Examples at [http://www.itee.uq.edu.au/~comp4809/Sample projects](http://www.itee.uq.edu.au/~comp4809/Sample%20projects)
- Ask your supervisor
 - Establish expectations
 - Find out what you need to do
 - Start doing it *now*

Planning: Make it concrete. What's your timeline to completion?



- Thesis interim deliverables
 - Draft to your supervisor due 6 weeks before the deadline
 - 2 wks for your supervisor to provide feedback, 2 wks to revise, 2 wks to finalise
 - 50 pages, 15,000 words, 500 words/day= 30 days = 6 weeks @ 5 days pw
 - Start writing 500 words/day in week 1 of next semester.