UG Thesis / PG Project

Doing Thesis Project

Dr. Aron Michael
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Information about thesis/project

- **Thesis/Project coordinator:**
  Dr. Aron Michael
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  a.michael@unsw.edu.au

- **Supervisor, assessor**

- **Staff in EE&T School Office**

- **Postgraduate Coordinator**
  Dr. Jayashri Ravishankar
  jayashri.ravishankare@unsw.edu.au

- **Use Moodle for thesis/project handling**

- **Important document:** Course Outline
Honours Thesis in UNSW3+

- Run across **3 terms**: Thesis A (ELEC4951), Thesis B (ELEC4952), and Thesis C (ELEC4953), each course is 4 UOC. Thesis A, B, and C must be taken sequentially without any term break unless prior approval from Director of Academic Studies or Thesis Co-ordinator.

- By default, Thesis A is pre-requisite for Thesis B and Thesis B is pre-requisite for Thesis C.

- Students will be allowed to start Thesis in any of the 3 terms. Once enrolled, they shall take Thesis A, B, and C consecutively without any term break unless given prior approval.
Honours Thesis in UNSW3+

- With the default 3-term thesis, if students fail to satisfactorily complete any of the Thesis courses at any given term, they will be allowed to re-enrol into the course in the following term.

- BE/ME projects will follow a similar structure with 3 courses: Project A (ELEC9451), Project B (ELEC9452) and Project C (ELEC9453). Again, the default is 3-term but also available is the conditional 2-term option.
Moodle for administration

Moodle portal for choosing supervisor and topic

- EET School Thesis/Project
- Thesis/Project Part A
- Thesis/Project Part B
- Thesis/Project Part C

Official Moodle courses for handling your work

- Term 1/20
- Term 2/20
- Term 3/20
<table>
<thead>
<tr>
<th>Course</th>
<th>Course Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>UG Thesis A (BE, BE-ME 4th yr)</td>
<td>4951</td>
</tr>
<tr>
<td>UG Thesis B (BE, BE-ME 4th yr)</td>
<td>4952</td>
</tr>
<tr>
<td>UG Thesis B (BE, BE-ME 4th yr)</td>
<td>4953</td>
</tr>
<tr>
<td>PG Project A (ME 8621, BE-ME 5th yr)</td>
<td>9451</td>
</tr>
<tr>
<td>PG Project B (ME 8621, BE-ME 5th yr)</td>
<td>9452</td>
</tr>
<tr>
<td>PG Project C (ME 8621, BE-ME 5th yr)</td>
<td>9453</td>
</tr>
<tr>
<td>PG Project A (MEngSc 8338)</td>
<td>9771</td>
</tr>
<tr>
<td>PG Project B (MEngSc 8338)</td>
<td>9772</td>
</tr>
</tbody>
</table>
How to find a supervisor and select topic

1. Go to: https://moodle.telt.unsw.edu.au/course/view.php?id=20890 enroll yourself as student; enrolment key is EETTPstudent

2. Log into Moodle course ‘EET School Thesis/Project’

3. View research profiles of prospective supervisors and topics in ‘Research Topics’ section.

4. Contact supervisor to negotiate and must get written permission to sign up on a topic before you can proceed to next step.

5. In Moodle ‘Registration’ icon:
   ▪ click ‘Select Supervisor’, find the supervisor and click action box to become a member
   ▪ click ‘Register Topic’, ‘Add Entry’ and enter your details and topic title.

6. Enroll in appropriate thesis/project course code on myUNSW
Supervisor and topic – 8338 stream

- Supervisor and topic will be coordinated by
  - Postgraduate Coordinator
    Dr. Jayashri Ravishankar
    jayashri.ravishankare@unsw.edu.au

- Encouraged to look for supervisor and topic at first instant
- Second year of program, WAM > 65, group project (2-3)
Thesis / Project

- Three parts (A, B and C) to complete over 3 terms of program.
- Under guidance of supervisor, work on an approved topic.
- Most important piece of work undertaken by student; attempt to solve a challenging practical design or to conduct research.
- Opportunity for students to develop and demonstrate their use of sound engineering methods and process.
- Typical activities: theoretical work; modeling & simulation; design, construction and testing of circuits & systems; development of software & embedded systems, etc.
- No distinction between good and mediocre projects, between individual and group work.
- Note: students doing work in a group must still submit individually written reports.
Thesis / Project

- **Part A:**
  - 4 UOC
  - Prerequisite:
    - BE degree: 120 units of credit and ELEC3117
    - ME/MEngSc degree: second year of program, WAM > 65, group project (2-3).

- **Part B:**
  - 4 UOC
  - Prerequisite:
    - Part A completed in immediate preceding session
Thesis / Project

- Part C:
  - 4 UOC
  - Prerequisite:
    Part B completed in immediate preceding session
**BE Honour Policy**

**WAM calculation**

- Part A&B&C are level 4 courses
- Part A+B+C = 18 UOC, level 4
  - Part A = 3.15 UOC (17.5%)
  - Part B = 1.8 UOC (10%)
  - Part C = 13.05UOC (72.5%)
- Total thesis weighting = 14.6% of whole

<table>
<thead>
<tr>
<th></th>
<th>Prior to 2015</th>
<th>From 2015</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>WAM</td>
<td>Thesis</td>
</tr>
<tr>
<td>Honour class 1</td>
<td>75</td>
<td>65</td>
</tr>
<tr>
<td>Honour class 2/1</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>Honour class 2/2</td>
<td>65</td>
<td>55</td>
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</tbody>
</table>
Part A

- involves detailed literature search and reviews of background on chosen topic
- expect some preliminary work completed, e.g. learn new software, system design, modeling, simulations
- planning activities that will be required for Part B and C
Part A: assessment

- For 4951, 9451:
  - individually written preliminary report (wk 10, 53% weighting)
  - oral presentation (wk 8-9, 47% weighting)
  - chair 1 seminar and sit in 5 others (wk 8-9, 0% weighting)

- For 9771:
  - Report: satisfactory/unsatisfactory marked by supervisor only
### Part A: Assessment Criteria

<table>
<thead>
<tr>
<th>PART A</th>
<th>Literature review and background work</th>
<th>50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interim report (53%)</td>
<td>Thesis plan</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>Preparation (preliminary) work</td>
<td>20%</td>
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<tr>
<td></td>
<td>Document presentation</td>
<td>10%</td>
</tr>
<tr>
<td>Seminar (47%)</td>
<td>Subject matter</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>Quality</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>Preliminary work</td>
<td>25%</td>
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<tr>
<td></td>
<td>Presentation</td>
<td>15%</td>
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<tr>
<td></td>
<td>Question handling</td>
<td>10%</td>
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</tbody>
</table>
Part B

- typically involves completing preliminary work – all required training and skilled must be acquired such as software, tool, and equipment design, construction of prototype, circuit testing, doing experiments, analysis of measurement results.

- Demonstrating preliminary (initial) results based on preliminary work.

- Proposed approach or methodology and modified planning for activities for the rest part of the thesis (half part B and part C). Progress report is to be submitted on Thursday of Week 5.

- Detailed thesis structure

- Demonstrating progress towards main task which should be supported by a short progress report (2-3 pages) and meeting with supervisor.
Part B: assessment

- **For 4952, 9452:**
  - individually written progress report (wk 5, 50% weighting)
  - Participation effort (wk 10, 50% weighting)

- **overall marking breakdowns through progress report:**
  - 60% preliminary work
  - 15% reflection
  - 15% project planning
  - 10% on presentation

- **For 9772:**
  - Thesis report 90% weighting
  - Participation effort 10% weighting
Part B: assessment

- Participation effort based on weekly submission of a long page work progress report, and weekly meetings with supervisor.
## Part B: assessment Criteria

<table>
<thead>
<tr>
<th>PART B</th>
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<tbody>
<tr>
<td>Progress report (50%)</td>
<td>Preliminary work completed</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td>• Preliminary result (60%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Reflection (15%)</td>
<td></td>
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<tr>
<td></td>
<td>• Plan (15%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Document presentation</td>
<td>10%</td>
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<tr>
<td>Participation Mark (50%)</td>
<td>Initiative and engagement</td>
<td>40%</td>
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<tr>
<td></td>
<td>• Engagement</td>
<td></td>
</tr>
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<td></td>
<td>• Ownership</td>
<td></td>
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<td></td>
<td>Sustained activity</td>
<td>30%</td>
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<tr>
<td></td>
<td>• Regular meeting</td>
<td></td>
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<tr>
<td></td>
<td>• Attendance of labs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diligence and competence</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>• Meticulous</td>
<td></td>
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<tr>
<td></td>
<td>• Professionalism</td>
<td></td>
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<tr>
<td></td>
<td>• Serious effort</td>
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</tbody>
</table>
Part C

- typically involves detailed design, construction of prototype, circuit testing, doing experiments, analysis of measurement results.
- some topics may involve only theoretical development, modeling or simulation.
- an individually written report must be submitted by Thursday of the last week (i.e. week 10).
- Open Day Presentation: poster, demonstrate/exhibit thesis work, verbal defence (Friday of week 9)
Part C: assessment

- For 4953, 9453:
  - Thesis report 85% weighting
  - Open Day presentation 15% weighting
# Thesis project assessment - summary

<table>
<thead>
<tr>
<th>Stage</th>
<th>Assessment components</th>
<th>4951/4952/4953</th>
<th>9451/9452/9453</th>
<th>9771/9772</th>
<th>Markers' weightings</th>
</tr>
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<tbody>
<tr>
<td></td>
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<td></td>
<td>Sup.</td>
</tr>
<tr>
<td><strong>PART A</strong></td>
<td>Report (prelim.)</td>
<td>57% (10%)</td>
<td>57% (10%)</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>43% (7.5%)</td>
<td>43% (7.5%)</td>
<td>not required</td>
<td>50%</td>
</tr>
<tr>
<td><strong>PART B</strong></td>
<td>Report (Progress)</td>
<td>50% (5%)</td>
<td>50% (5%)</td>
<td>90%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Participation</td>
<td>50% (5%)</td>
<td>50% (5%)</td>
<td>10%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>PART C</strong></td>
<td>Report (Final)</td>
<td>85% (62.5%)</td>
<td>85% (62.5%)</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Poster</td>
<td>15% (10%)</td>
<td>15% (10%)</td>
<td>50%</td>
<td>50%</td>
</tr>
</tbody>
</table>
Schedule

- Sign up for topics: open NOW until end of week 1

- Part A:
  - Weekly meetings: with supervisor
  - Risk Assessment: at start of work, e.g. week 5-6
  - Oral presentation: week 8/9 (T1/20)
  - Seminar attendance: chair 1, attend 5 others
  - Written preliminary report: Thursday of week 10 (T1/20)

- Part B:
  - Weekly meetings: with supervisor
  - Written progress report: Thursday of week 5 (T2/20)
  - Participation effort: week 5-10 (T2/20)
Schedule

- Part C:
  - Final report: Thursday of week 10 (T3/20)
  - Poster: Thursday of week 9 (T3/20)
Written Report

- Information available on Moodle: how to write report, what the requirements are, what to write, etc
  - Format: paper format (size, layout, margins, numbering), text format (fonts, size, line spacing, etc), title page format
  - Writing style: audience, wording, length, referencing
  - Content and structure: problem definition, theory and considerations on how to solve problem, solution method, results (measurements, simulations), analysis of results and discussion, conclusions
  - Other requirements: summary sheet, pointers
Notes

- **Plagiarism** = academic misconduct
  - unacknowledged use of other people’s work
  - very strict rules that impose severe penalties, eg. failure
  - information to help you avoid plagiarism: [https://student.unsw.edu.au/plagiarism](https://student.unsw.edu.au/plagiarism)

- **Late submission**:  
  - Report – 5 marks off for every day late until mark decrease to 50. Zero if report not turned in within 6 weeks
  - Presentation – zero mark is awarded

- **Marking**:  
  - by thesis supervisor and assessor, equal weighting. Assessor is assigned by School.
  - marking done independently by each marker, without collusion or knowledge of the other mark
FAQ

- How long is thesis report?
- How thesis is assessed?
- Materials needed for thesis project:
  - Allowed budget: $100
  - Technical staff to make purchase orders for you
  - Research group may spend above this limit
Important things to do now

- Choose topic/supervisor
- Sign up asap