Report by the Working Committee for Thesis Revisions

7th December 2009

Attendees: Sri Parameswaran, Bruno Gaeta, Ken Robinson, Graeme Bushell (Chemical Engineering)

Absentees: Tim Lambert

The working committee would like to make the following recommendations with regards to CSE thesis revisions

1) Consistent thesis UOCs across all programs

The following is the current UOC allocation across different programs

CS: COMP4910 Thesis Part A (3 UOC), COMP4911 Thesis Part B (15 UOC)
CE: COMP4930 Thesis Part A (6 UOC), COMP4931 Thesis Part B (6 UOC)
SE: SENG4910 Thesis Part A (6 UOC), SENG4911 Thesis Part B (12 UOC)
BI: BINF4910 Thesis Part A (3 UOC), BINF4911 Thesis Part B (12 UOC)

The committee recommends that this inconsistency should be rectified. Thesis should be worth the same UOCs (in each semester) for all programs.

The committee recommends that the basic thesis should be worth 12 UOC: 6UOC for Thesis A and 6 UOC for Thesis B for all CSE programs. Advanced/Elite thesis options with higher UOC allocations are recommended for good students (see next item). This is inline with the proposed faculty thesis review committee recommendations. There are some concerns with regards the theses UOC allocations as elaborated in the next bullet item.

2) Elite/Advanced Thesis

Students with high WAM should be encouraged to enrol in advanced thesis. The committee recommends the addition of a 6 UOC Thesis C course to implement this option. The faculty committee will be making similar recommendations for implementation across all Eng schools.

In other words, there would be 2 thesis options:

Base Thesis = Thesis A (6 UOC) + Thesis B (6 UOC) = 12 UOC

Advanced Thesis = Thesis A (6 UOC) + Thesis B (6 UOC) + Thesis C (6 UOC) = 18 UOC.

Advanced thesis students would generally enrol in Thesis B and C in the same semester. However, there could be an option for students to enrol in Thesis C in the

semester following thesis B (i.e. extending the thesis over 3 semesters) or possibly in the summer semester. It was noted that students who spent more time (e.g., 3 semesters) would probably produce higher quality work.

The committee advocated the use of a minimum WAM (e.g. WAM>75) eligibility criteria for entry into advanced thesis. Thesis A marks could also be used an additional criteria to weed out students who are not expected to produce a good quality advanced thesis. It was noted that students should be informed of their acceptance into advanced thesis prior to the opening of enrolments in the subsequent semester.

Advanced thesis topics should be explicitly marked in the thesis database. Only those students enrolled in these marked topics should be permitted to enrol for Thesis C.

Expectations for the advanced theses should be made clear to students. The faculty committee recommendation is that advanced thesis students should submit a draft manuscript along with their thesis report. The working committee was in favour of this. Advanced thesis students would also be required to give a seminar at the end of their thesis. This seminar may or may not be explicitly marked.

A suggestion was made that certain programs may consider making it mandatory for students to enrol in the advanced thesis option.

Concerns:

Some concerns were raised with the proposed UOC allocations.

The committee recognised that the 12 UOC option would be for weaker students who are not keen on doing an advanced thesis. Such students would not be expected to aim for an honour's degree.

However, it was noted that some of the current programs already offer 18 UOC theses. The proposed changes essentially would mean that we are asking students to do more work (e.g., manuscript submission) for less UOCs.

Ken proposed the introduction of a 24 UOC advanced thesis option (Thesis A+ Thesis B + Thesis C + Thesis D) which would run across 3 semesters.

Another concern raised was that good students (particularly those obsessed with marks) might find that the advanced theses involves too much work and may opt for the 12 UOC option and an elective course, instead. Ideally, we want all the good students to enrol in advanced thesis. The committee discussed the possibility of capping the maximum marks for the 12 UOC thesis option (to say 85) to discourage this. It was noted that Maths/Advanced Maths used something similar in the past. The Maths website did not explicitly state this. It was also noted that the faculty might not view this favourably.

Another issue that needs to be addressed is group work. It was noted that Elec Eng does not permit Honour's students to work in groups on the thesis. We may consider this for advanced theses.

3) Assessment Components/Deliverables

The following is the current state of affairs:

Thesis A (10%)
Seminar: Week 7 (5%)
Thesis A Report: Week 11 (5%)

Thesis B (90%)
Demonstration: Week 10 (not marked)
Thesis B Report: Week 12 (90%)

It is fairly common knowledge, that students don't start working on their thesis until their second semester. The general impression being that students are only expected to do literature review and draft a plan in thesis A. This opinion is reinforced by the low weight assigned to the seminar and thesis A report.

With a view to get students to start working on their project early in the first semester of enrolment, the committee recommends the following changes:

Thesis A (15%)
Seminar: Week 6 (5%)
Thesis A Report: Week 7 (10%)

Thesis B+C (85%)
Demonstration: Week 10 (not marked)
Final Thesis Report: Week 13 (85%)
Thesis C Seminar: Week 13 (marking TBD)

The expectations of the seminar and Thesis A report would be similar to what is in place currently. As is the case now, students would only receive a Satisfactory or Unsatisfactory grade.

The early deliverables give students ample time (6 weeks) to start on their thesis. Supervisors can monitor progress to ensure that they don't slip up. It should be made very clear to students that they MUST start working on their thesis during Thesis A. The committee considered the option of additional assessments at the end of thesis A (especially for advanced thesis students) but thought that it would increase the workload on academic staff and also increase the # of deliverables for students.

4) Thesis Marking Scale

The current marking scale is as follows:

A+	• absolutely top-quality work, best I've seen • publishable in good conference with little change • corresponds to a very high HD (>95%) • would be awarded rarely (maybe once per year)
A	• excellent work, does everything required • results are good, could be published with some re-working • corresponds to a solid HD
B	• good quality work, but with some minor deficiencies • would need substantially more work to be publishable • corresponds to a Distinction (DN)
C	• adequate • the topic could have been treated much better • corresponds to a Credit (CR)
D	• just satisfactory, minimal standard for a CSE thesis • corresponds to a bare Pass (PS)
E	• not up to standard required of a CSE thesis • corresponds to a FL grade (around 40%)
F	• very much below the standard required of a CSE thesis • corresponds to a low fail (around 20%)

The current conversion formula is

A+ -> 95, A -> 88, B -> 77, C -> 66, D -> 55, E -> 40, ...

There is concern that this scale is coarse-grained especially in the middle. The committee recommends modifying the scale and adding more fine-grained grades. On e possibility could be:

A+ ->95, A ->90, B+ ->85, B ->80, C+ ->75, C ->70, D+ ->60, D ->55, E ->45, F ->35.

It was also recommended that the explanation for the grades (A+/A/B, etc) be tailored for each marking criteria (Literature Review/Own Work, etc). Salil will develop a revised scale in accordance with these recommendations.