School of Civil and Environmental Engineering
2022

CVEN9451/9452/9453 A/B/C Masters Coursework Thesis for Students beginning Thesis A in 2022

Units of Credit	4 + 4 + 4
Contact hours	as agreed with Supervisor
Course Coordinators	Dr Asal e0ughzl a.bidarmaghz@unsw.edu.au
	office: CE502 in Civil and Environmental Engineering Building

This course is in three parts. Thesis A is undertaken in the first term of enrolment. Thesis A is a prerequisite for Thesis B and Thesis B is a prerequisite for Thesis C.

By default, students must ordinarily take Masters Thesis A, B and C in each consecutive term.

With School permission, students may request to take Masters Thesis A in the first term then Masters B + C together in the second term. This option is strictly limited only to students who can demonstrate the ability to progress. Further details are provided in the ASSESSMENT section below.

Option 2. If you are not employed or your employer is not willing to nominate a topic and co-supervise the thesis, you have to complete the thesis in internal mode. Browse online the selection of available topics and contact potential supervisors. The internet link is provided below (to work it needs to be cut and pasted in your browser):

http://intranet.civeng.unsw.edu.au/info-about/student-intranet/honours#master

Note: It is unlikely that this list is fully up to date and comprehensive – it is strongly advised that individual students approach School teaching staff in area(s) of potential interest, to explore the range of possible thesis topics that may be available.

Different modes of delivery and their requirements

Internal: This mode applies to all students who choose a topic under option 2. They have to find a supervisor internally and complete all components within the School. As part of their examination, they are required to submit an abstract and give a seminar presentation or video presentation within CVEN9453.

External: This mode applies to students who choose a topic under option 1, i.e. they have an external employer to co-supervise their Thesis. If the student resides within the Sydney Basin, the student will submit a thesis abstract and give a research seminar or video presentation within CVEN9453 as part of the thesis examination.

Distance: This mode applies to students who choose a topic under option 1, i.e. they have an external employer to co-supervise their Thesis. If the student resides outside the Sydney Basin, this student will have the option to submit a video presentation as part of their thesis examination instead of giving a research seminar. Students are strongly encouraged to present their thesis additionally to their work colleagues.

2. ORGANISE ENROLMENT:

• Discuss your selection with potential topic supervisors.

• Once you have a Supervisor and topic, your Supervisor will need to sign the Thesis Application form, which can be downloaded from this link Masters Project Thesis Form, then you have enrol yourself on myUNSW then upload the signed form to the Student Intranet here: https://intranet.civeng.unsw.edu.au/info-about/student-intranet/submit-thesis-application-form%20

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• Please note that you will only be able to complete course enrolment 72 refEn65 0 Td[(n)-18 Tm[(enuTw)]-8 (i-0.0052(-n (t)-1.1

• Present their research in a seminar or a video presentation.

WHO IS REQUIRED TO COMPLETE A THESIS?

Program 8621: All students in program 8621 must complete the thesis project in their final year of study (or alternatively enrol in CVEN9050/9051 (Masters Practice Project).

Program 8338: Students who have not completed a recognised Thesis in their undergraduate studies or further postgraduate studies are required to complete a Thesis in their Masters Coursework program. If you are unsure if you have completed one, or if the school is not aware that you have completed one, please contact the the ti11 y032011 q

TEACHING STRATEGIES

The Masters Coursework Thesis Project is an individual project in which each student works under the guidance of a nominated member of the School's academic staff ('supervisor'). One or more co-supervisors (including from outside the School) may also be nominated depending on the set up of the project. The research may involve laboratory experiments, field or industry-based investigations, design applications or theoretical investigation.

PRIVATE STUDY

- As a rough guide only, an average student would be expected to spend approximately 10 hours per week on work related to this course.
- More guidance is needed initially from the Supervisor when the topic is being defined to establish theobjectives and methodology of the thesis.

SUPERVISION

- There are no specific hours assigned to this course, except for the scheduled Lunchtime Workshops (see below).
- Meetings between the Supervisor (s) and the student may take place periodically or by privatearrangement.
- Should supervisors be on study leave or unavailable for a considerable period of the session, alternative arrangements need to be established and made known to both the student and course coordinator.

CONSULTATION

- The course coordinator will be available by prior appointment to liaise with enrolled students as needed.

EXPECTED LEARNING OUTCOMES

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At the conclusion of this course, students should be able to:
• Develop a design or a process, or investigate a hypothesis, following industry and professional engineering standards.
• Critically reflect on a specialist body of knowledge related to their thesis topic.
• Apply scientific and engineering methods to solve an engineering problem.
• Analyse data objectively using quantitative and mathematical methods.
• Demonstrate oral and written communication in professional and lay domains.

ASSESSMENT – KEY DATES FOR YOUR DIARY

Masters Thesis A: covers the planning/preparing and completion of the initial work on the project, including undertaking a comprehensive literature review related to their specific area of research.

Masters Thesis B: continue to progress the research and commence the writing of methodology and results chapters of the thesis.

Masters Thesis C: Thesis C complete any outstanding lab/field/modelling research and analyses; complete and submit the keystone deliverable Research Thesis; and present findings to staff and peers at a research seminar.

In the event of an unsatisfactory assessment in Masters Thesis A or Masters Thesis B, a student must submit a show cause. A plan of future action to improve student performance must be prepared and agreed upon by both the supervisor and course coordinator before progress to Masters Thesis B or Masters Thesis C is allowed.Failure to receive the progress assessment by the due date will result in the student results being withheld and/or failure.

MASTERS THESIS A SUBMISSIONS

- **Component A1 submission** should include**:** Statement of the Problem and draft Literature Review.
- **Component A2 submission** should include: More detailed, revised and improved Introduction (Statement of the problem), Literature Review.

- **Lunchtime Workshops:** Course Orientation (week 1), Literature Review Workshop (week 2)

MASTERS THESIS B SUBMISSIONS

- **Component B1 submission:** Progress Report – this will take the form of an improved and extended A2 submission, including a detailed Thesis Outline (chapter and sub-headings), Research Methodology and preliminary Results and Analyses.
- **Lunchtime Workshop:** Thesis Wris81 (ak)-8 THESIS Beg 15 TSBT 0 0 Tm( )Tj-0.002 Tc 0.002 02 Tc3 0.0

With Supervisor and School approval, students who demonstrate accelerated progress during Research Thesis A may enrol in a 4+8 UoC structure, where Master Thesis B and C are both taken in the same term after Research Thesis A.

Students should submit their request to undertake Master Thesis B+C (concurrent) at the same time that they

Fail in Thesis B & C (when taken simultaneously) – Students must re-enrol in Thesis B again, and cannot concurrently enrol in C. They can then take Thesis C when Thesis B has been satisfactorily completed

LATE PROCEDURE – In all cases, applications for late submission can be applied for BEFORE the due date. This is at the discretion of the Thesis Coordinator, but should only be granted in exceptional circumstances. As per normal, students can also apply through myUNSW for special consideration.

Further information on what constitutes special consideration, and how to apply for it, can be found at this website:

https://student.unsw.edu.au/special-consideration

All students have to complete the following online training:
- On-Line Work Health & Safety Awareness
- On-Line Ergonomics

Students working in the laboratory also have to complete:
- On-Line Laboratory Safety Awareness
- On-Line Green Lab Environment Compliance

There are additional courses for students who work with radiation or gene technology or in a PC2 Laboratory.
It is the responsibility of the student to self-

MASTERS RESEARCH THESIS A COURSE PROGRAM

Week	***Milestones***	***Suggested Activities***	***Assessment/Workshops***
1	Confirm Thesis Topic and Enrolment	**Attend Lunchtime Orientation Session**	**Orientation Session** Date/time: Wednesday 01/06/2022 at 12 – 12.45 pm. Venue: LIVE STREAM (via teams – detailed to be emailed to students)
2	Arrange regular supervision meetings with Supervisor(s) Complete mandatory student health and safety training	**Attend Lunchtime Workshop – 'How to Write a Literature Review"**	**Literature Review & Problem Statement Workshop** Date/time: Wednesday 08/06/2022 at 12:30-1:30 pm Venue: CE701 H20 (7th Floor Civil & Environmental Engineering Building) – **in person**
3		Work on statement of the problem and literature review with Supervisor	
4		Work on statement of the problem and literature review with Supervisor	CENSUS DATE: Sunday 26/06/2022
5	Prepare Draft for Component A1	Work on statement of the problem and literature review with Supervisor	
6		Work on statement of the problem and literature review with Supervisor	
7	Submit Component A1 – Statement of Problem and draft Literature Review	Finalise and submit Statement of the Problem and Literature Review to Supervisor (s)	***Component A1 Due – submit to your Supervisor by 4.00 pm on Friday***
8	Receive review of Component A1 from Supervisor (s)	Revise Statement of the Problem and Literature Review. Consult on your proposed Research Methodology with Supervisor.	
9	Complete additional student health and safety training	Revise Statement of the Problem and literature review and prepare draft project skeleton. Consult on your proposed Research Methodology with Supervisor.	

MASTERS RESEARCH THESIS B COURSE PROGRAM

Week	***Milestones***	***Suggested Activities***	***Assessment/Workshops***
1	Receive review of Component A2 from Supervisor (s)	Undertake thesis research with Supervisor(s) guidance.	

Week	*Milestones*	
1		Com guid
2		Com guid
3	Complete remaining research work.	Com guid
4	Complete analysis of results.	Com guid guid
5		Wor