



## COURSE DETAILS

<b>Units of Credit</b>	4 + 4 + 4
<b>Contact hours</b>	as agreed with supervisor
<b>Course Coordinators</b>	<b>Summer Term:</b> Dr Richard Collins email: richard.collins@unsw.edu.au office: CE103 in Valentine Annex (H22)

## INFORMATION ABOUT THE COURSE

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.

**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](#) → enrol yourself on myUNSW → then upload the signed form to the Student Intranet here: <http://intranet.civeng.unsw.edu.au/info-about/student-intranet/submit-thesis-application-form> (You need to cut and paste this link in your browser for it to work)
- ◁ Please note that you will only be able to complete course enrolment for CVEN9451. The School will complete

Note that the Engineering Student Support Services (ENG SSS) are not collecting the hard copy Master Thesis application forms.

**PLEASE BE AWARE THAT IF YOU CANNOT FIND A SUPERVISOR BY THE START OF TERM OF MASTERS THESIS A, THEN YOU WILL NOT BE ALLOWED TO ENROL/CONTINUE IN THE COURSE AND IT WILL BE AUTOMATICALLY DROPPED FROM YOUR ENROLMENTS. IF YOU HAVE CONTACTED THE COURSE COORDINATOR TO ASSIST YOU FINDING A SUPERVISOR, THEN YOU WILL REMAIN ENROLLED IN THE COURSE.**

### **OBJECTIVES**

The Masters Coursework Thesis Project is an individual project in which each student works under the guidance of a nominated member of the academic staff (supervisor). A co-supervisor may also be nominated depending on the set up of the project (e.g. an employer could be a co-supervisor in an external thesis project). The work may involve laboratory experiments, field or industry-based investigations, design applications or theoretical research.

The Masters Coursework Thesis aims to provide students with the opportunity to:

- ◁ Undertake and execute an academic research project;
- ◁ Produce a self-contained research thesis, which may be understood and used by others with technical background knowledge in the same discipline area as the thesis topic, and may potentially be suitable for

***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. **Alternatively,**

up of the project (e.g. an employer could be a co-supervisor in an external thesis project). The work may involve laboratory experiments, field- or industry-based investigations, design applications or theoretical research.

### **PRIVATE STUDY**

- ◁ **As a rough guide only, an average student would be expected to spend approximately 35 hours per week on work related to this course during the summer term.**
- ◁ More guidance is needed initially from the supervisor when the topic is being defined to establish the objectives and methodology of the thesis.

### **SUPERVISION**

- ◁ There are no specific hours assigned to this course, except for the orientation session in Week 1 (see below).
- ◁ Meetings between the supervisor(s) and the student may take place periodically or by private arrangement.
- ◁ 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**

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.

**IT IS ESSENTIAL THAT YOU REGULARLY CHECK YOUR OFFICAL UNSW EMAIL  
FOR UPDATES, REMINDERS, ETC.**

## **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 or through a video presentation.

h project and  
writing the thesis document (A, B & C), and disseminating the results in different forms (A, B & C).

In the event of an unsatisfactory assessment in Masters Thesis A or 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 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.

NOTE: If students are seeking to apply for permission to enrol concurrently in Masters Thesis B + C in the following Term, then the additional requirement is that the A2 submission must also include a Thesis Outline (Chapters and indicative sub-headings) plus a description of Research Methodology.

- < **Workshops:** Course Orientation (week 1), Recorded Literature Review Workshop (week 1)

1. **Component A1 is due: WEEK 3**

2. **Component A2 is due: WEEK 5**

**Submissions A1 & A2 must be provided to the supervisor by 4.00pm Friday of the submission week.**

### 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.
- < **Workshop:** Recorded Thesis Writing Workshop (Week 1)

1. **Component B1 is due: WEEK 3 for students enrolled in Masters Thesis B+C concurrently**

**WEEK 5 for students enrolled in Masters Thesis B only**

**Submission B1 must be provided to the supervisor by 4.00pm on Friday of the submission week.**

### MASTERS THESIS C SUBMISSIONS

1.	Seminar Abstract	Week 3	5 % of Final Mark
2.	Research Seminar / Video Presentation	Week 4	10 % of Final Mark
3.	Thesis Submission	Week 5	70 % of Final Mark (incl. 10 % Supervisor)

**Further details of the requirements for the Thesis Abstract and Seminar / Video Presentation format and scheduling will be advised by the Course Coordinator during the term.**



## LATE PROCEDURE

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-enrol into these courses via this webpage:

<http://safety.unsw.edu.au/Training/student-training>

In addition to the online courses, every student must complete a local induction (RIPA Folder) with the laboratory manager of the laboratory they are working in. Anyone working in WRL laboratories can organise their local induction with their supervisor.

In meetings with their supervisor, students will be informed about their project specific Risk Assessments, Risk Management Forms and Safe Work Procedures. It is the responsibility of the student to engage in this discussion with their supervisor and to follow Health & Safety requirements and expectations.



**MASTERS RESEARCH THESIS A COURSE PROGRAM**

<b>Week</b>	<b>Milestones</b>	<b>Suggested Activities</b>	<b>Assessment/Workshops</b>
<b>1</b>	<p>Confirm Thesis Topic and Enrolment</p> <p>Arrange regular supervision meetings with Supervisor(s).</p> <p>Complete mandatory student health and safety training</p>	<p><b>Attend Orientation Session</b></p> <p><b>View Recorded Workshop – ‘How to Write a Literature Review’</b></p> <p>Work on Statement of the Problem and Literature Review with supervisor</p>	<p><b>Orientation Session</b> Date/time: Monday 4<sup>th</sup> January 12 - 12:30 pm Venue: LIVE STREAM (see Moodle for details)</p> <p><b>Literature Review &amp; Problem Statement Workshop</b> Recorded session (see Moodle for details)</p>
<b>2</b>	<p>Complete mandatory student health and safety training</p>	<p>Work on Statement of the Problem and Literature Review with supervisor</p>	<p><b>CENSUS DATE: 11.59 pm Sunday 17<sup>th</sup> January</b></p>
<b>3</b>	<p>Submit Component A1 Statement of Problem and draft Literature Review</p>	<p>Work on Statement of the Problem and Literature Review with supervisor</p>	<p><b>Component A1 Due submit to your supervisor by 4.00 pm on Friday</b></p>
<b>4</b>	<p>Receive review of Component A1 from supervisor(s)</p>	<p>Revise Statement of the Problem and Literature Review and prepare draft project skeleton.</p> <p>Consult on your proposed Research Methodology with supervisor.</p>	
<b>5</b>	<p>Submit Component A2 Statement of Problem and draft Literature Review</p>	<p>Revise Statement of the Problem and Literature Review and prepare draft project skeleton.</p> <p>Consult on your proposed Research Methodology with supervisor.</p>	<p><b>Component A2 Due submit to your supervisor by 4.00 pm on Friday</b></p>

**If students are seeking to apply for permission to enrol concurrently in Masters Thesis B + C in the following Term, then the additional requirement is that the A2 submission must also include a Thesis Outline (Chapters and indicative sub-headings) plus a description of Research Methodology.**



**MASTERS RESEARCH THESIS C COURSE PROGRAM**

---

<b><i>Week</i></b>	<b><i>Milestones</i></b>	<b><i>Suggested Activities</i></b>	<b><i>Assessments</i></b>
--------------------	--------------------------	------------------------------------	---------------------------