



CVEN9931/9932 Masters Coursework Thesis A & B

Semester 1 & 2, 2016

Never Stand Still

Faculty of Engineering

School of Civil and Environmental Engineering

COURSE DETAILS

Units of Credit	6
Contact hours	as agreed with supervisor
Course Coordinator and Lecturer	Dr Stefan Felder email: s.felder@unsw.edu.au office: Room 303 in Civil and Environmental Engineering Building phone: 807 19861 (Water Research Laboratory, Manly Vale)
Additional Lecturers	Topic Supervisor as nominated

INFORMATION ABOUT THE COURSE

This course is in two parts. CVEN9931 covers Part A in the first Semester of enrolment, which is a prerequisite for CVEN9932 Part B which is undertaken in the following Session. Students may be exempted of completing a Master's Coursework Thesis if they have previously completed a recognised Thesis in their undergraduate studies or further postgraduate studies

HANDBOOK DESCRIPTION

This course is the first of two parts and is undertaken prior to CVEN9932 Masters Project B. Successful completion of Parts A and B are required to obtain the equivalent of 12 UOC in CVEN9930 Masters Project. Permission of Specialisation Authority required for admission to CVEN9931 and CVEN9932.

The Masters Project may describe directed research work on an approved subject and will be completed under the guidance and supervision of a member of the academic staff. The research may involve a directed laboratory or field investigation, analytical or numerical modelling, a detailed design, literature review or such other individual research project approved by the Head of School. Part A involves the satisfactory formulation of the project, completion of a significant part of the research and the development of the Project and thesis outline which is to be eventually submitted the following semester within CVEN9932 Masters Project B.

Online Handbook description is available at myUNSW:

www.handbook.unsw.edu.au/postgraduate/courses/2016/CVEN9931.html
www.handbook.unsw.edu.au/postgraduate/courses/2016/CVEN9932.html

*PROCEDURE FOR SELECTION AND CONFIRMATION OF A THESIS TOPIC (CVEN9931)

1.FIND A SUPERVISOR:

Option 1. If you are employed and your employer is willing to nominate a topic and co-supervise the thesis, you can choose to do your thesis in external or distance* mode.

You will have to find an academic supervisor within the school to assist with administration and assessment. This should be an academic from the appropriate discipline. Please see the link below.

<http://www.engineering.unsw.edu.au/civil-engineering/academic-staff-list-a-z>

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

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.

2. ORGANISE ENROLMENT:

Once you have agreement from both your employer (option 1) and an academic supervisor, please complete a Masters Coursework Thesis application form and send it to the School office to organise enrolment

*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 15 minute seminar presentation within CVEN9932.

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 be required to come into the School to give a 15 minute seminar presentation within CVEN9932 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 poster as part of their thesis examination instead of giving a seminar presentation. Students are strongly encouraged to present their thesis additionally to their work colleagues.

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 project is a two semester course students can commence in semester 1 and 2.

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

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

WHO IS REQUIRED TO COMPLETE A THESIS?

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 Student Centre so an assessment can be made.

WHAT IS A MASTERS COURSEWORK THESIS?

That depends quite a bit on your field of study. However, all Theses have at least two things in common:

- They are based on students' original research.
- They take the form of a written report, which presents the findings of that research.

WHY WRITE A MASTERS COURSEWORK THESIS?

- ***Satisfy your intellectual curiosity***

The thesis is your chance to follow your passions, explore further, and contribute some original ideas and research in your field.

- **Develop transferable skills**

Whether you choose to stay in your field of study or not, the process of developing and crafting a feasible research project will polish skills that will serve you well in almost any future job. After all, most jobs require some form of problem solving and oral and written communication. Writing Masters Coursework Thesis requires that you:

- ask smart questions
- acquire the investigative instincts needed to find answers
- navigate libraries, laboratories, archives, databases, and other research venues
- develop the flexibility to redirect your research if your initial plan flops
- master the art of time management
- sharpen your argumentation skills
- organize a lengthy piece of writing
- polish your oral communication skills by presenting and defending your project to academic staff and students

- **Work closely with academic staff**

Writing a thesis offers the opportunity to work one-on-one with an academic supervisor. Such relationships can enrich your intellectual development and later serve as invaluable references for employment.

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 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.

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 the objectives and methodology of the thesis.

SUPERVISION

- There are no specific hours assigned to this course, except for the scheduled Workshops (see the Course Programme).
- Meetings between the supervisor 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

This course enhances the student's skills for undertaking scholarly enquiry by attempting to achieve a specific topic objective within a defined period of time. A significant component of the course (CVEN9931 Part A) relates to the review of literature, which promotes independent and reflective learning as well as increases students' capacity to develop information literacy. The report and presentation are expected to reinforce the student's ability and confidence in the written and oral communication of technical information.

ASSESSMENT – KEY DATES FOR YOUR DIARY

There is no mark (i.e., Pass, CR, DN, HD) for CVEN9931. A satisfactory assessment (SY) in all Components of CVEN9931 listed below is essential for progression to CVEN9932. Components 1 and 2 are assessed by the supervisor.

- **Component 1 submission** should include: Statement of the Problem and Literature review.
- **Component 2 submission** should include: More detailed, revised and improved Introduction (Statement of the problem), Literature review, Thesis Outline and proposed Methodology.
- **Attendance of lunchtime Workshops** (Literature Review Workshop, Thesis Writing Workshop I). For students residing outside the Sydney Basin, the workshop notes will be available in distance mode via Moodle.

In the event of an unsatisfactory assessment in any of components 1, and 2, or absence at any of the workshops, 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 Part B CVEN9932 is allowed. Failure to receive the progress assessment by the due date will result in the student results being withheld and/or failure.

CVEN9931 SUBMISSIONS

1. Component 1: due: Week 7
2. Component 2: due: Week 12

Submissions 1 and 2 must be given to the supervisor by 4.00pm on Friday of the submission week.

***** REFER BELOW FOR DETAILED CVEN9931 COURSE PROGRAM *****

CVEN9932 SUBMISSIONS

We consider that there is significant benefit in you presenting your research outcomes to your peers. Those students residing within the Sydney Basin will be required to give a 15 minute presentation on their findings on campus. Those students residing outside the Sydney Basin will not be required to attend the campus (although they may elect to do so) and will be marked on their research poster. It is strongly recommend that those students residing outside the Sydney Basin present their findings to their work colleagues. The best posters will be exhibited at the day of the seminar presentation.

Submission for students located in the Sydney Basin:

- | | | | |
|----|-------------------|---------|--|
| 1. | Thesis Abstract | Week 9 | 5% of Final Mark |
| 2. | Research Seminar | Week 11 | 10 % of Final Mark |
| 3. | Thesis Submission | Week 13 | 85 % of Final Mark
(incl. 10% Supervisor) |

The thesis is to be submitted to the School Office by 4.00pm on Friday of the submission week.

Submission for students located outside Sydney Basin can choose the following option (to avoid students have to fly in for the presentation only):

- | | | | |
|----|-------------------|---------|--|
| 1. | Poster submission | Week 10 | 15 % of Final Mark |
| 2. | Thesis Submission | Week 13 | 85 % of Final Mark
(incl. 10% Supervisor) |

The thesis is to be submitted to the School Office by 4.00pm on Friday of the submission week.

THESIS LATE PENALTY: In all cases, special consideration can be applied for BEFORE the due date. This is at the discretion of the thesis coordinator, and will only be granted in exceptional circumstances. 5 marks off the thesis for every day late. Penalty applies until the marks for the course decrease to 50, and further lateness does not result in failure of the course, but might be a failure of the thesis (weekends count as days).

If you are conducting a thesis based at an employer, you are required to provide them with a copy of your thesis in week 13.

Further details of the requirements for the Thesis Abstract and Seminar format and scheduling will be advised by the Course Coordinator during the session.

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

RELEVANT RESOURCES

Due to a lack of specific resources tailored for a Masters Coursework Thesis, the online references below provide some good guide even so they are written for Undergraduate students:

- Honours Thesis Writing for Engineering Students:
<http://www.lc.unsw.edu.au/thesis/index.html>
- Online iWrite thesis writing tutorial:
<http://iwrite.sydney.edu.au/tutorials/start/starthere.htm>

Additional material to use:

- Topic material as direct by the supervisor.
- Materials provided by course coordinator.

References on writing style and technical communication skill:

- Lindsay, D "A Guide to Scientific Writing" 2nd ed. Longman, 1995
- Eisenberg, A "Effective Technical Communication" 2nd ed. McGraw-Hill, 1992.
- Evans, D. "How to write a better thesis or report" Melbourne University Press, 1995.
- Winkle, A and Hart, B "Report writing Style Guide for engineering students" 3rd ed. Faculty of Engineering, Flexible Learning Centre, University of South Australia, 1996.

HEALTH & SAFETY

UNSW is committed to the health and safety of all people who work, study, visit UNSW campuses. Health and safety is intrinsic to the way UNSW does business and UNSWs overall aim is "Harm to Zero", with the expectation that no person shall come to any harm while working, studying or visiting UNSW.

UNSW will comply with the NSW Work Health and Safety Act 2011 and the Work Health and Safety Regulation 2011.

Details about UNSW Health and Safety commitment are available online:

<https://safety.unsw.edu.au/unsw-health-and-safety-policy-statement>

and comprehensive information about UNSWs Health and Safety can be found on:

<http://safety.unsw.edu.au/>

Student requirements, training and responsibilities

As a student undertaking a Masters' coursework thesis you are often undertaking experimental works in laboratories, attending data collection in the field or participating in community consultations. Independent of your thesis topic, the expectation is that you adhere to the UNSW Health & Safety policies.

Every Masters' coursework student must complete online safety training at the beginning of Masters' Project A by the end of Week 2.

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-enrol into these courses via this webpage:

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

In addition to the online courses, every student has to 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.

COURSE EVALUATION AND DEVELOPMENT

The School of Civil and Environmental Engineering evaluates each course each time it is run through (i) the UNSW Course and Teaching Evaluation and Improvement (CATEI) process, and (ii) Focus Group Meetings.

As part of the CATEI process, your student evaluations on various aspects of the course are graded; the Course Coordinator prepares a summary report for the Head of School. Any problem areas are identified for remedial action, and ideas for making improvements to the course are noted for action the next time that the course is run.

Focus Group Meetings are conducted by the four Year Managers (academic staff) for any students who wish to attend, in each year of the civil and/or environmental engineering programs. Student comments on each course are collected and disseminated to the Lecturers concerned, noting any points which can help improve the course.

DATES TO NOTE

Refer to MyUNSW for Important Dates available at:
<https://my.unsw.edu.au/student/resources/KeyDates.html>

ACADEMIC ADVICE

For information about:

- Notes on assessments and plagiarism,
- School policy on Supplementary exams,
- Special Considerations,
- Solutions to Problems,
- Year Managers and Grievance Officer of Teaching and Learning Committee, and

Refer to Academic Advice on the School website available at:

<http://www.engineering.unsw.edu.au/civil-engineering/resources/academic-advice>

CVEN9931 COURSE PROGRAM (for students commencing in Session 1 & Session 2)

Week	Milestones	Suggested Activities	Assessment/Workshops
1	Confirm Enrolment and Thesis Topic	<p>- Confirm enrolment with School office. - Outstanding 'Thesis Commencement' forms to School Office.</p> <p>Meeting with course coordinator to discuss project expectations.</p>	<p>Orientation Session / Introduction lecture (by Stefan Felder) Date/time: Wednesday 2nd March 12 – 1pm Venue: Civil Design Studio (CE501).</p>
2	Health & Safety training	<p>Completion of mandatory student health and safety training: (http://safety.unsw.edu.au/Training/student-training)</p>	
3	Confirm Project expectation	Work on literature review and consult with supervisor	<p>Literature Review & Problem Statement Workshop (by Pam Mort, UNSW Learning Centre together with Honours students) Date/time: Wednesday 16th March 1-2pm Venue: Civil Design Studio (CE501).</p>
4		Work on literature review and consult with supervisor	
5	Prepare Draft for Component 1	Work on literature review and consult with supervisor.	
6		Work on literature review and consult with supervisor.	
7	Submit Component 1 – Statement of problem and literature review	Hand report to Supervisor Consult Investigation and Methodology with supervisor.	<p>Component 1 Due – hand in to your supervisor</p>
8	Receive review of Component 1 from supervisor	Consult Investigation and Methodology with supervisor.	

9		Expand on literature review and prepare draft project skeleton. Consult Investigation and Methodology with supervisor.	Thesis Writing Workshop (by Pam Mort, UNSW Learning Centre together with Honours students) Date/time: Wednesday 4th May 1-2pm Venue: Civil Design Studio (CE501) .
10	Prepare Draft Component 2	Consult Investigation and Methodology with supervisor.	
11	Prepare Draft Component 2	Consult Investigation and Methodology with supervisor.	
12	Submit Component 2 – Improved statement of problem & literature review. Thesis outline and methodology.	Review Draft, expand on contents and finalise component 2	Component 2 Due – hand in to your supervisor
13	Receive review of Component 2 from supervisor	Confirm satisfactory assessment of CVEN9931 by your supervisor (or supervisors) and ensure that supervisor has returned the results to the subject coordinator.	