



ZEIT4500 Engineering Project A, ZEIT4501 Engineering Project B, and ZEIT4297 Engineering Project Extension S1 and S2 2019

Course Outline

Course Staff

Engineering Project Coordinator

Professor Chi-King Lee

Building 17, Room 211

Tel: 6268 8059

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Office hours: Friday 11:30-12:30, or by prior appointment

For course administration matters, the project coordinator is usually available for addition consultation during normal working hours; please phone or email to make an appointment.

The obvious and most important members of staff missing from here are your Project Supervisor/s or Technical Advisors. **You should arrange your first project meeting with your supervisor not later than the second week of the first project semester.** Please make regular contact and use of them. Their role is to aid your learning in the chosen research area. In fact, they are your mentor. The guidance and significant knowledge in the area of research as well as techniques for research that they can convey is the most valuable resources.

A Panel of academics familiar with your area, is also formed to guide you through your project, providing you with initial direction, to help you overcome barriers in the research process, as well as to assess how well you perform and adapt to the research. They give you feedback from the various parts of assessment. You should gain their advice on how to communicate in the assessments. You will have a formal meeting with the Panel, and other students whom they are guiding, on a monthly basis.

Where possible, you will be able to seek consultancy with the supervisor/s at any time during normal working hours. The best way to arrange this is by email. It is highly advised you make a regular appointment with your supervisor/s to discuss project and directions.

Context: Engineering Project

This research-based set of courses extends over **two semesters, each with 6 UOC, with a possible extension of another 6 UOC in the second project semester** for students with

outstanding performance in their first project semester. Since the assessment for each is linked they are combined in this single course outline. Successful completion of two (or three) of these courses on the same topic is required. Topics for study are selected in the year previous to this enrolment, usually from a list of topics provided by the School that are closely aligned to current research directions and development platforms within the School. Provided a suitable supervisor is found within the School, topics may differ from those suggested and even may be conducted outside the School.

This course is the “capstone” of your degree. It consolidates findings and the skills developed and refined throughout the degree. It affords the opportunity to take these skills and knowledge from other courses in the degree and forge a valuable contribution by research to the discipline. Students can take significant ownership of a minor body of research and reflect this to the wider community by presentation and written submission. In doing so you will learn and refine skills in managing a low risk project.

Student Learning Outcomes

At the conclusion of this course, students will have

CLO1: demonstrated an in-depth knowledge of a niche research area, as reported for assessment, and,

CLO2: exhibited communication skills for oral seminar, oral panel, and written medium, to a quality that has

CLO3: demonstrated information and digital literacy in defining the scope of the research in the broader context science and engineering, and

CLO4: demonstrated rigour in analysis, critique and reflection within a design or research task.

CLO5: shown application of knowledge obtained herein, and building on that learnt throughout the degree, to solve a minor research problem.

CLO6: experienced and refined methodology for management of a small project, as also observed through panel and peer interaction,

CLO7: documented and adopted findings from work experience in Engineering in Industry, and

CLO8: indicated an insight into the diversity of Engineering through a course in specialist lectures.

Developing Graduate Capabilities

Successful completion of this course contributes to the acquisition of UNSW graduate capabilities. UNSW aspires to develop globally focused graduates who are **rigorous scholars**, capable of **leadership** and **professional practice** in an **international** community.

Students will be encouraged to develop the following Program-level learning outcomes by undertaking the course activities and mastering the knowledge content. These outcomes are based on the *Engineers Australia Stage 1 Competencies for Professional Engineers* and will be assessed within the assessment tasks.

1.3 In-depth understanding of specialist bodies of knowledge within the engineering discipline.

1.4 Discernment of knowledge development and research directions within the engineering discipline.

1.6 Understanding of the scope, principles, norms, accountabilities and bounds of contemporary engineering practice in the specific discipline.

2.1 Application of established engineering methods to complex engineering problem solving.

2.2. Fluent application of engineering techniques, tools and resources.

2.3. Application of systematic engineering synthesis and design processes.

2.4. Application of systematic approaches to the conduct and management of engineering projects.

3.2. Effective oral and written communication in professional and lay domains.

3.3. Creative, innovative and pro-active demeanour.

3.4. Professional use and management of information.

3.5. Orderly management of self, and professional conduct.

As this course is the pinnacle of your undergraduate studies, it is timely to remind you of the full set of Program Learning Outcomes (Engineering Australia's Stage 1 Competency) which is available on the Moodle site.

The Learning Management System

Moodle is the Learning Management System used at UNSW Canberra. All courses have a Moodle site which will become available to students at least one week before the start of semester. Please find all help and documentation (including Blackboard Collaborate) at the [Moodle Support](#) page.

UNSW Moodle supports the following web browsers:

Google Chrome 50+

Safari 10+

Internet Explorer is not recommended. Addons and Toolbars can affect any browser's performance.

Operating systems recommended are:

Windows 7, 10, Mac OSX Sierra, iPad IOS10

For further details about system requirements click [here](#).

Log in to Moodle [here](#).

If you need further assistance with Moodle:

For enrolment and login issues please contact:

IT Service Centre

Email: itservicecentre@unsw.edu.au

Phone: (02) 9385-1333

International: +61 2 9385 1333

For all other Moodle issues please contact:

External TELT Support

Email: externalteltsupport@unsw.edu.au

Phone: (02) 9385-3331

International: +61 2 938 53331

Opening hours:

Monday – Friday 7:30am – 9:30 pm

Saturday & Sunday 8:30 am – 4:30pm

Resources for Students

The course materials including timetabling, multimedia resources, and guidelines for report preparation can be found on the Moodle site.

Previous research summaries may be found on the School student journal site, <http://ojs.unsw.adfa.edu.au/index.php/juer>. You should take advice from your supervisor as to the existence and applicability of these.

Textbooks

The nature of this course means that the textbooks that may be useful to you will depend very much on the research project that you are undertaking. It may be useful for your supervisor to suggest a textbook on a case-by-case basis that is essential for your progress.

Course Schedule

Due to the nature of this course, there will be NO regular lecture during the semester time. The two one-hour time slots reserved simply ensure that all students shall have two free time slots per week to meet with their supervisors. **However, at the first week of each semester, two compulsory briefings will be arranged and all students must attend.** The first briefing will cover matters related to the course learning outcomes, overall project schedule, panel meeting, access to project room, support from the Technical Support Group (TSG). The second briefing will focus library support, report writing skills and Turnitin submission. **In addition, in each semester up to three compulsory seminars jointly organized by the School and Engineer Australia will be arranged and all students must attend.**

An overall course schedule is attached at the end of this outline. All students are strongly encouraged to print it out and bookmark all the important deadlines in their calendars.

The structure of the research topic is one for you to develop under the guidance of your supervisor/s. There is significant opportunity within the semester timetabling during normal hours for you to undertake the work. Use the time between scheduled courses to make progress on this project.

It is highly recommended that you participate in regular scheduled meetings with your supervisor/s to discuss project objectives, progress, and skills. Similar consultations with the TSG are provided for those undertaking hardware development projects to aid you in structuring timelines for production and assembly and to learn from experienced Mentors. **It is your responsibility**, with guidance from these mentors and your supervisor/s, **to manage your outputs** to meet workshop schedules, such that you are able **to complete the objectives of your research**.

Course Evaluation and Development

One of the key priorities in the 2025 Strategy for UNSW is a drive for academic excellence in education. One of the ways of determining how well UNSW is progressing towards this goal is by listening to our own students. Students will be asked to complete the myExperience survey towards the end of this course.

Students can also provide feedback during the semester via: direct contact with their supervisor and panel staff, the “On-going Student Feedback” link in Moodle, Student-Staff Liaison Committee meetings in schools, informal feedback conducted by staff, and focus groups. Student opinions really do make a difference. Refer to the Moodle site for this course to see how the feedback from previous students has contributed to the course development.

Important note: Students are reminded that any feedback provided should be constructive and professional and that they are bound by the Student Code of Conduct Policy

<https://www.gs.unsw.edu.au/policy/documents/studentcodepolicy.pdf>

Course Specific Information

You may be allocated after hours building access and where possible, access to either the undergraduate project rooms (Building 16, Room G04) or specialist research laboratories, should you require space to build hardware or conduct experiments. This is a decision taken by the Coordinator and/or the Panel on a needs basis and is subject to available resources. The Coordinator and/or the Panel can arrange this on your behalf with the Building Officer. Where possible we have installed fastening points so you can lock your computer/laptop in a secure fashion. The provision

of suitable Kensington locks or similar is your responsibility.

During your work you will undoubtedly obtain the likes of textbooks, software, equipment etc, that should be returned to its source provider prior to completion of the project. You will be required to complete the return of such items, signed-off by the Panel and returned to the School office before any mark is released for this course.

Equipment should not be moved between laboratories without permission being obtained from the workshop staff. Removal of equipment outside the building requires your supervisor's approval.

If it is appropriate and you wish to take the completed work with you at the end of the project, then you **must purchase all components** yourself. If **any components** are purchased by the University you **will not be allowed** to take the completed work.

The School reserves the right to ask you to present or demonstrate your work in order to clarify issues arising in its examination. Should this be necessary then you will be notified before the end of the examination period. For this reason you should not dismantle or delete work prior to the end of the examination period, and you should not make arrangements to go on leave during this time.

Many of you will be working in specialist research laboratories, and workshops. The School provides student workshop facilities for your use, and provides training for use of the equipment. You will need instruction from the staff responsible for those areas on potential hazards and risks in those areas, and H&S methods to be adopted. The Panel can arrange this training as a group. General information on relevant Health and Safety policies and expectations is found at

<https://gateway.unsw.adfa.edu.au/iadmin/iohs/index.html>

In case that your project involves human research which is with or about people or their data or tissue/biological sample, then you will need to obtain **Human Ethics Approval**. More details can be found in the introduction briefing in Week 1 as well as the Research Ethics site: <https://gateway.unsw.adfa.edu.au/iresearch/current/ethics.php>

Access to Workshops and TSG, or if you need consumables to support your project, can **only** be arranged with your Panel. Please involve your supervisors in this. Only those with current competencies can use the Student Workshop. Access to the other workshops for project work can **only** be arranged with your Panel.

If a student wishes to receive any TSG support from the workshops or any other laboratories, the student MUST submit a TSG plan summary

by end of Week 5 of the first semester study to the student's supervisors and panel for approval and discussion with the School's TSG.

No costs will be reimbursed to a student without prior panel approval being given.

The academic staff involved in each of the Panels in 2019 are provided on the Moodle site.

Teaching Strategies

It is recognised that this is the first body of research to be undertaken by the student, and as such there is a combination of mentoring by the supervisor/s, and opportunity to self-develop valuable skills and understanding of the research area.

Written and oral presentation is used both as an experience for the student of the methods used in academic and industrial careers, and as assessment of the capability of the student.

The assessment and Panel meetings are structured to monitor the student's progress and provide opportunity to refine the management techniques during the execution of the project.

Throughout the course of the year, assessment has been distributed so as to allow the staff to assess student capability. Panel meetings assess progress, and act as guide to the students themselves on their progress towards a successful and rewarding outcome. The student is guided to manage the work outputs against external demands, workshop timelines, and course deadlines. They are encouraged to benchmark themselves against expectations and success of their work, and the work of others within the same research cohort. Through Panel interaction they learn to adjust the expectations for improved productivity.

Whole course moderation process

It is important in such a large and diverse course as this to have confidence in the standards being expected of students, and that the marking reflects those standards. It is reasonable that student and staff will expect the school to take every possible step to ensure the quality, scope and assessment are equitable across all streams and Panels in this Engineering Project course, so such steps are outlined here for their information.

Students should note the offering of projects and the MoU detailing each student's contributions, are closely monitored by the Panels, and the Coordinator, to ensure equity in what is defined as the Project Specific Deliverable; Expected scope and standards of evidence required in the submissions of all projects are discussed by the Panel academics prior to the project starting; Staff and students alike are regularly reminded of the marking schedule (attached here) as a precursor

to assessing all parts of this work; The Coordinator and other select supervisors sit on multiple Panels to feed-in and moderate expectations. In this context they are able to align the marking standards and interpretations in an equitable way; Written assessments are also additionally read by members of other Panels, and the Coordinator, to detect any essence of difference, and if these arise, discussions with the supervisors, Panels and even students are undertaken; The Panel meetings held regularly, provide a forum to discuss and illuminate expectations; The Coordinator also holds regular briefings with students in this regard, and these are also relayed to the Panel chairs; Panel chairs have access to the same resources and instructions provided to the students, on the Moodle site, and reflect these to their Panel; Importantly, refinement of this process is integral to the success and improvement of the course, and academic staff and students provide feedback that strengthens this course.

Assessment Requirements

All marks obtained for assessment items during the session are provisional. The final mark as published by the university following the assessment review group meeting is **the only official mark.**

This study stretches across two semesters with an EC grade provided in the first session, updated to final grade at the conclusion of the courses. In these courses you shall undertake a body of work under the technical supervision of one or more academic staff, and guidance of a group of interested academics (The Panel). The topic of this research will be decided in consultation with you and the supervisors, and allocated on the basis of availability of staff and resources. By default, all student have approached their potential supervisor and have already chosen and have been allocated a project before their first semester of project work start. **Any student who has failed a project previously will not be allowed to undertake a new project on the same research topic.**

The Head of School reserves the right to remove a student's enrolment if performance is deemed unsatisfactory. At mid-project the Panel will decide if sufficient progress has been demonstrated to allow continuation onto ZEIT4501. A high standard of progress may result in an invitation to enrol also in an additional 6 UoC expansion of the project (ZEIT4297) as a **technical elective course**. For unsatisfactory performance a FL grade will be recorded, and a new project and re-enrolment in ZEIT4500 will be required.

Pass Conceded grades will not be awarded from S1 2016 onwards. Any student who receives a mark in the range 46-49 in a course will have their

performance reviewed by the school/discipline assessment meeting. If the meeting is satisfied that the student has demonstrated achievement of all of the learning outcomes at least once, a grade of 50 PS will be recommended. The meeting should record its reasons for deciding to recommend 50 PS, or to leave the student's mark under 50.

The assessment for the Engineering Project is many fold:

1) The student will in consultation with the supervisor/s develop an **Interim Report** that outlines the scope and significance of the intended research. It will define where this project sits in the wider context of its application, and will include a project management timeline. It will detail reading and progress made on the project up till the date of submission. This will serve as a document to address in the oral defence. **It should be submitted by email to the supervisor and the Panel Chair.**

2) **An oral defence or Viva** to a small panel of academics of your project direction, and partial work towards the objectives will be scheduled in Weeks 11 and 12 of your first project semester for ZEIT4500. The submitted Preliminary Report above, will serve as supporting documentation in this defence. The members of the Panel will assign a mark. The format of the Viva will be communicated to you and the Panel.

3) A **Seminar** of 12 minutes duration with 3 minutes of question time will be conducted in Week 11 and 12 of your second project semester the week. The audience of this seminar will be your supervisors, peers, academic and technical staff, and members of the general public. The academic members of the audience will assess this work.

4) A 10 page **Research Summary** is a written reflection on the project definition, impact, significance, and conclusions will be submitted for review to the School Undergraduate Journal. It is a communication of your contribution to the focus area and engineering discipline. It will be submitted electronically in PDF format to the School student journal (JUER) (see <http://ojs.unsw.adfa.edu.au/index.php/juer>).

Guidelines on document structure are provided. Your supervisor and Panel will also provide guidance on how to write and structure this document to best communicate the significance of your project work to the area of research.

All research summary reports **must** go through the **Turnitin check** via the course Moodle site. All students must submit their draft versions two weeks before the project seminar week for a prelim screening so that they can use the **Originality Report** generated to improve their final version. The due date for the **final version summary and the corresponding Originality Report** is the Monday of Week 13 (or Week 14 for students who

start their projects in Semester 1) of the second project semester. The Panel will assess and review this work, and may request revisions, whereupon the final submission completes this assessment.

5) A **Project Specific Deliverable** will be identified by your supervisor as reasonable documentation required to support and document the project work so it may be continued by others. This may include electronic working files and designs, documentation of the operations of tools and software used in the project, a traditional research thesis, etc. The form of this deliverable will be detailed in writing at the outset of your study and the Memorandum of Understanding (MoU) signed, and will have been recognised by the Panel as representing a similar workload as required of other students enrolled in this course. The Project Specific Deliverable should be provided directly to the supervisor by Monday, revision week of the second project semester, and the quality and content will form part of their assessment of your work.

Due Dates for Assessments

Project Preliminary Report and Viva

Due date: **CoB, 24 May 2019**; (to Supervisor and Panel Chair by email) and oral Viva during Weeks 11 and 12 (27 May – 7 June)

25% of assessment

Project Seminar

7 Oct. 2019 to 18 Oct. 2019

10% of assessment

Project Research Summary

Due date for **draft report** and Turnitin check: **CoB, 4 Oct. 2019** (to supervisor by email)

Due date for **final report** and Turnitin Check: **CoB, 21 Oct. 2019** (Originality report and final report to supervisor and panel chair by email, final report to upload to JUER)

35% of assessment

Project Specific Deliverable

Due date: **CoB, 28 October 2019** (to supervisor)

30% of assessment

A summary of assessment due dates and their weighing can be found in the attachment "**Summary of submission deadlines and weighting of assessments**".

Compulsory components or minimum performance standards

The overall passing mark is set at 50%. In addition, it is mandatory requirement of these courses that you attend **at least 8 specialist lectures**, and will have completed **60 days of practical work experience**.

While attendance of the specialist lectures will not contribute to the final mark of the course, you **must keep a brief record** of the specialist lectures attended by using the summary form attached at the end of this outline and upload it to the course Moodle site by **25 Oct. 2019**.

Instructions on work experience have already been dispatched to you through the Work Experience Moodle Site. **You must lodge all the required documentation to that Moodle site for Work Experience as soon as the requirements are completed.** Failure to provide the either set of documentation will result in a Withheld (WD) grade.

Outcomes-Assessment Matrix

The Outcomes-Assessment matrix below shows the relationship between the course learning outcomes and the assessments. This table also show the mapping between the course learning outcomes and the Program Learning Outcomes.

	CLO 1	CLO 2	CLO 3	CLO 4	CLO 5	CLO 6	CLO 7	CLO 8
PLO 1.3	RSP F		MSP F					
PLO 1.4	RSP F		MSP F					
PLO 1.6	RSP F							PFL
PLO 2.1				RPF	RSP F			
PLO 2.2				RPF	RSP F			
PLO 2.3				RPF	RSP F			
PLO 2.4				RPF	RSP F	MR S		
PLO 3.2		MR SF				MR S	WP F	
PLO 3.3		MR SF						PFL
PLO 3.4		RSP F	RSP F				WP F	PFL
PLO 3.5		RSP F	RSP F				WP F	

Assessment key: W=Work experience, L=Specialist Lectures, M =Panel Meetings, R=Prelim Report/Viva, S=Project Seminar, P=Project Deliverable, F=Research Summary/Final Report

Late Submission of Assessment

The total possible marks attainable in these submissions will be reduced by **10% per day** or part thereof that the submission exceeds the due date.

Assessment items submitted more than 5 calendar days late will not be assessed and will receive a grade of zero.

All requests for special consideration must be formally submitted via MyUNSW prior to the assessment due date.

Abiding by the framework above, should you for reasons of illness or misadventure fail to meet the

submission dates, or be unavailable for the oral presentations above, appropriate documentation should be presented as soon as practicable after recovery, and arrangements will be made in consultation with the Engineering Project Coordinator for a late submission.

Supplementary assessment in the event of failure of the course is generally not available, and should not be expected.

Referencing

In this course, students are required to reference following the APA 6 / Chicago 16B referencing style. Information about referencing styles is available at:

https://gateway.unsw.adfa.edu.au/iteaching/iall/writing_presenting_skills/using_sources/referencing.html

Academic Integrity and Plagiarism

UNSW has an ongoing commitment to fostering a culture of learning informed by academic integrity. All UNSW staff and students have a responsibility to adhere to this principle of academic integrity. All students are expected to adhere to UNSW's Student Code of Conduct

<https://www.gs.unsw.edu.au/policy/documents/studentcodepolicy.pdf>

Plagiarism undermines academic integrity and is not tolerated at UNSW. It is defined as using the words or ideas of others and passing them off as your own, and can take many forms, from deliberate cheating to accidental copying from a source without acknowledgement.

For more information, please refer to the following:

<https://student.unsw.edu.au/plagiarism>

Getting Started Guide

<https://www.unsw.adfa.edu.au/getting-started-1>

The Getting Started Guide has lots of useful information regarding:

- Where to get help
- Administrative matters
- Getting your passwords set up
- How to log on to Moodle
- Accessing the Library and other areas.

Additional Information as required

List of attachments

- (1) Overall project time frame
- (2) Summary of submission deadlines and weighting of assessments
- (3) Summary form for specialist lectures
- (4) ZEIT4500 Engineering Project Assessment Guidance

CRICOS Provider no. 00098G
The University of New South Wales Canberra.

	2019 Semester 1	2019 Semester 1
	Semester 1 FY Engineering project (Students start in 2019 Semester 1)	Semester 2 FY Engineering Project (Students start in 2018 Semester 2)
Week	Events for students	Events for students
1 (25 Feb.-1 Mar.)	Week 1 (17:00-18:00, Tue. 26 Feb. LT6): Semester 1 briefing to all students for course requirements and administration. Week 1 (14:00-15:00, Fri. 1 Mar. LT6): Marker's Space, Library resources and time management.	Week 1: (17:00-18:00, Tue. 26 Feb. LT9) Semester 1 briefing to all students for course requirements and administration Week 1 (14:00-15:00, Fri. 1 Mar. LT6): Library resources and time management.
2 (4-8 Mar.)	Week 2 (14:00-15:00, Fri. 8 Mar. LT6): Writing workshop CoB Friday, Week 2 (8 Mar.): (i) First meeting with supervisors (ii) Deadline to submit approval form for accessing Building 16, Room G04.	Week 2 (14:00-15:00, Fri. 8 Mar. LT6): Writing workshop for all students
3 (11-15 Mar.)	By Friday, Week 3 (15 Mar.): First panel meeting Friday, Week 3 (15 Mar.): Allocations of Room G04, Building 16 release to students	Panel meeting should be resumed by Friday, Week 3 (15 Mar.)
4 (18-22 Mar.)	Friday 22 March (14:00 – 15:00): Compulsory Engineering Australia Presentation: Rolfe Hartley	
5 (25-29 Mar.)	By Friday, Week 5 (29 Mar.): Submission of TSG/WHS/Ethics plan to supervisor/Panel for discussion	
6 (1-5 Apr.)		
April Break (8-19 April)		
7 (22-26 Apr.)	22 April. Easter Monday PH 23-25 April Non-teaching days	22 April. Easter Monday PH 23-25 April Non-teaching days
8 (29 Apr.–3 May)		
9 (6–10 May)	Friday 10 May (14:00 – 15:00): Compulsory Engineering Australia Presentation: Major General Marcus Thompson	
10 (13-17 May)		
11 (20-24 May)	CoB, Friday, Week 11 (24 May): Interim report due date, submit to supervisor and Panel Chair by email	CoB, Friday, Week 11 (24 May): Due date to submit draft summary report to Turnitin and originality Report to supervisor.
12 (27-31 May)	Panel Viva	Project Seminar
13 (3-7 Jun.)	Panel Viva	Project Seminar
14 (10–14 June)		CoB, Tuesday, Week 14 (11 Jun.): Deadline for the submission of final summary report and Turnitin Originality Report to supervisor and panel chair. Upload the summary reports to the JUER site. CoB Friday, Week 14 (14 Jun.): Deadline for students to submit their specialist lecture summaries to Moodle site
Semester 1 Revision week (17-21 June)	By Friday, Revision week (21 June): Semester 1 Panel Viva marks released to students	CoB, Monday, Revision Week (17 June): Deadline for students to submit their project deliverables. By Friday, Revision week (21 June): Panel Seminar marks released to students
Exam Week 1 (24-28 June)	Semester 1 Examinations	Semester 1 Examinations
July Break (1-12 July)		

	2019 Semester 2	2019 Semester 2
	Semester 1 FY Engineering project (Students start in 2019 Semester 1)	Semester 2 FY Engineering Project (Students start in 2019 Semester 2)
Week	Events for students	Events for students
1 (15-19 Jul.)	Week 1: Semester 2 briefings (i) Update of FY engineering project schedule and other issues. (ii) Briefing by library staff on report writing (iii) Briefing on using Turnitin	Week 1: Semester 2 briefings (i) Update of FY engineering project schedule, reminder of WHS issues (ii) Briefing by library staff on report writing (iii) Briefing on using Turnitin
2 (22 -26 Jul.)		CoB Friday, Week 2 (26 July): (i) First meeting with supervisors (ii) Deadline to submit approval form for accessing Building 16, Room G04.
3 (29 Jul. - 2 Aug.)	Panel meeting should be resumed by Friday Week 3 (2 Aug.)	CoB Friday Week 3 (2 Aug.): (i) First panel meeting for new students (ii) Allocations of Room G04, Building 16 release to students
4 (5-9 Aug.)		
5 (12-16 Aug.)		By Friday, Week 5 (16 Aug.): Submission of TSG/WHS/Ethics plan to supervisor/Panel
6 (19-23 Aug.)		
7 (26-30 Aug.)		
Sept. Break (2-13 Sep.)		
8 (16-20 Sep.)		
9 (23-27 Sep.)		
10 (30 Sep. -4 Oct.)	CoB, Friday, Week 10 (4 Oct.): Due date to submit draft summary report to Turnitin and originality Report to supervisor.	CoB, Friday, Week 10 (4 Oct.): Interim report due date, submit to supervisor and Panel Chair by email
11 (7-11 Oct.)	Semester 2 Panel Seminar	Panel Viva
12 (14-18 Oct.)	Semester 2 Panel Seminar	Panel Viva
13 (21-25 Oct.)	CoB, Monday, Week 13 (21 Oct.): Deadline for the submission of final summary report and Turnitin Originality Report to supervisor and panel chair , upload the summary reports to the JUER site. CoB Friday, Week 13 (25 Oct.): Deadline for students to submit their specialist lecture summaries to Moodle site	
Semester 2 Revision week (28 Oct-1 Nov.)	CoB, Monday, Revision Week (28 Oct.): Deadline for project deliverables By Friday, Revision week (1 Nov.): Seminar marks released to students	CoB Friday, Revision Week (1 Nov.): Panel Viva marks released to students
Semester 2 Exam (4-8 Nov.)	Semester 2 Examinations	Semester 2 Examinations
Post-Exam W1 (11-15 Nov.)		
Post-Exam W2 (18-22 Nov.)	CoB Friday, Post-Exam W2 (22 Nov.): Close of Building 16, Room G04.	
Post-Exam W4 (2-8 Dec)		
Jan. 2020 Week 2 to Week 4	17 Jan. 2020: Deadline to submit temporary access request for B16, Room G04 ended	
Feb. 2020 Week 4	CoB, Friday, 21 Feb. 2020 : Temporary access to Building 16, Room G04 ended	

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9 (6–10 May)	Friday 10 May (14:00 – 15:00): Compulsory Engineering Australia Presentation: Major General Marcus Thompson	
10 (13-17 May)		
11 (20-24 May)	CoB, Friday, Week 11 (24 May): Interim report due date, submit to supervisor and Panel Chair by email	CoB, Friday, Week 11 (24 May): Due date to submit draft summary report to Turnitin and originality Report to supervisor.
12 (27-31 May)	Panel Viva	Project Seminar
13 (3-7 Jun.)	Panel Viva	Project Seminar
14 (10–14 June)		CoB, Tuesday, Week 14 (11 Jun.): Deadline for the submission of final summary report and Turnitin Originality Report to supervisor and panel chair. Upload the summary reports to the JUER site. CoB Friday, Week 14 (14 Jun.): Deadline for students to submit their specialist lecture summaries to Moodle site
Semester 1 Revision week (17-21 June)	By Friday, Revision week (21 June): Semester 1 Panel Viva marks released to students	CoB, Monday, Revision Week (17 June): Deadline for students to submit their project deliverables. By Friday, Revision week (21 June): Panel Seminar marks released to students
Exam Week 1 (24-28 June)	Semester 1 Examinations	Semester 1 Examinations
July Break (1-12 July)		

	2019 Semester 2	2019 Semester 2
	Semester 1 FY Engineering project (Students start in 2019 Semester 1)	Semester 2 FY Engineering Project (Students start in 2019 Semester 2)
Week	Events for students	Events for students
1 (15-19 Jul.)	Week 1: Semester 2 briefings (i) Update of FY engineering project schedule and other issues. (ii) Briefing by library staff on report writing (iii) Briefing on using Turnitin	Week 1: Semester 2 briefings (i) Update of FY engineering project schedule, reminder of WHS issues (ii) Briefing by library staff on report writing (iii) Briefing on using Turnitin
2 (22 -26 Jul.)		CoB Friday, Week 2 (26 July): (i) First meeting with supervisors (ii) Deadline to submit approval form for accessing Building 16, Room G04.
3 (29 Jul. - 2 Aug.)	Panel meeting should be resumed by Friday Week 3 (2 Aug.)	CoB Friday Week 3 (2 Aug.): (i) First panel meeting for new students (ii) Allocations of Room GO4, Building 16 release to students
4 (5-9 Aug.)		
5 (12-16 Aug.)		By Friday, Week 5 (16 Aug.): Submission of TSG/WHS/Ethics plan to supervisor/Panel
6 (19-23 Aug.)		
7 (26-30 Aug.)		
Sept. Break (2-13 Sep.)		
8 (16-20 Sep.)		
9 (23-27 Sep.)		
10 (30 Sep. -4 Oct.)	CoB, Friday, Week 10 (4 Oct.): Due date to submit draft summary report to Turnitin and originality Report to supervisor.	CoB, Friday, Week 10 (4 Oct.): Interim report due date, submit to supervisor and Panel Chair by email
11 (7-11 Oct.)	Semester 2 Panel Seminar	Panel Viva
12 (14-18 Oct.)	Semester 2 Panel Seminar	Panel Viva
13 (21-25 Oct.)	CoB, Monday, Week 13 (21 Oct.): Deadline for the submission of final summary report and Turnitin Originality Report to supervisor and panel chair , upload the summary reports to the JUER site. CoB Friday, Week 13 (25 Oct.): Deadline for students to submit their specialist lecture summaries to Moodle site	
Semester 2 Revision week (28 Oct-1 Nov.)	CoB, Monday, Revision Week (28 Oct.): Deadline for project deliverables By Friday, Revision week (1 Nov.): Seminar marks released to students	CoB Friday, Revision Week (1 Nov.): Panel Viva marks released to students
Semester 2 Exam (4-8 Nov.)	Semester 2 Examinations	Semester 2 Examinations
Post-Exam W1 (11-15 Nov.)		
Post-Exam W2 (18-22 Nov.)	CoB Friday, Post-Exam W2 (22 Nov.): Close of Building 16, Room G04.	
Post-Exam W4 (2-8 Dec)		
Jan. 2020 Week 2 to Week 4	17 Jan. 2020: Deadline to submit temporary access request for B16, Room G04 ended	
Feb. 2020 Week 4	CoB, Friday, 21 Feb. 2020 : Temporary access to Building 16, Room G04 ended	

Summary of submission Deadlines and weighting of assessments

Students who start their projects in S2, 2018

S/N	Submission and weighting	Submission method	Deadline
1	Draft summary report and Turnitin report	Email to supervisor	24 May 2019
2	Project Seminar (10%)	Organized by panel	27 May – 7 June 2019
3	Final summary report and Turnitin report (35%)	Email to supervisor and panel chair, upload summary report to JUER site	11 June 2019
4	Special lecture summary	Upload to Moodle site	14 June 2019
5	Project deliverables (30%)	To Supervisor	17 June 2019

Students who start their projects in S1, 2019

S/N	Submission and weighting	Submission method	Deadline
1	Approval form for accessing Building 16, Room G04. (if needed)	Email to coordinator, Richard Allum and Darryl Budarick	8 March 2019
2	TSG/WHS/Ethics plan (if needed)	Email to supervisor and cc to panel chair Supervisor should follow up on any ethics plan	29 March 2019
3	Interim report and Viva (25%)	Report email to supervisor and panel chair Viva organized by panel	Report: 24 May 2019 Viva: 27 May – 7 June 2019
4	Draft summary report and Turnitin report	Email to supervisor	4 Oct. 2019
5	Project Seminar (10%)	Organized by panel	7-18 Oct. 2019
6	Final summary report and Turnitin report (35%)	Email to supervisor and panel chair, upload summary report to JUER site	21 Oct. 2019
7	Special lecture summary	Upload to Moodle site	25 Oct. 2019
8	Project deliverables (30%)	To Supervisor	28 Oct. 2019

Students who start their projects in S2, 2019

S/N	Submission	Submission method	Deadline
1	Approval form for accessing Building 16, Room G04. (if needed)	Email to coordinator, Richard Allum and Darryl Budarick	16 July 2019
2	TSG/WHS/Ethics plan (if needed)	Email to supervisor and cc to panel chair Supervisor should follow up on any ethics plan	16 Aug. 2019
3 4	Interim report and Viva (25%)	Report email to supervisor and panel chair Viva organized by panel	Report: 4 Oct. 2019 Viva: 7 - 18 Oct. 2019

Background

As graduate engineers you will be exposed to a variety of engineering tasks involving your peers, employers, other professions, and involvement with the community. You have a number of ethical obligations such as are noted in the graduate attributes of both UNSW and Engineers Australia, including the need to consider Sustainable Development within the tasks you will undertake. One of the best ways to understand what is meant by such words and actions, is to hear how they are considered by practitioners in the field.

This requirement for you to expand your knowledge of the impact a professional engineer has on the community is a very beneficial activity and will allow you to develop the significance of your training and chosen career. We ask you complete a small diary detailing the points you gather from at least eight seminars within this year.

Requirement

You **must attend 8 special seminars/lectures** and complete the summary form in Pages 2 and 3. The form should then be uploaded to the course Moodle site before submission the deadline indicated in the Course Outline.

In general, the lectures/seminars you attended should be related to **Science, Technology, Engineering and Medical (STEM)**. They should be presented by a **specialist** (e.g. PHD student, university lecturer, engineer, scientist) not a generalist (e.g. non-specialist government officer, writer, journalist).

At most two could be "Webinars" while only one of the eight may be explicitly related to Management.

ZEIT4500/4501/4297 ENGINEERING PROJECT SPECIAL SEMINAR SUMMARY FORM

Student's Name: _____ Student No. _____

Special Seminar/Presentation 1

Title of Seminar/Presentation:

Name of Presenter:

Date:

Time:

Brief summary of the seminar/presentation (maximum 5 lines)

Special Seminar/Presentation 2

Title of Seminar/Presentation:

Name of Presenter:

Date:

Time:

Brief summary of the seminar/presentation (maximum 5 lines)

Special Seminar/Presentation 3

Title of Seminar/Presentation:

Name of Presenter

Date:

Time:

Brief summary of the seminar/presentation (maximum 5 lines)

Special Seminar/Presentation 4

Title of Seminar/Presentation:

Name of Presenter

Date:

Time:

Brief summary of the seminar/presentation (maximum 5 lines)

Special Seminar/Presentation 5
Title of Seminar/Presentation:
Name of Presenter:
Date:
Time:
Brief summary of the seminar/presentation (maximum 5 lines)

Special Seminar/Presentation 6
Title of Seminar/Presentation:
Name of Presenter:
Date:
Time:
Brief summary of the seminar/presentation (maximum 5 lines)

Special Seminar/Presentation 7
Title of Seminar/Presentation:
Name of Presenter
Date:
Time:
Brief summary of the seminar/presentation (maximum 5 lines)

Special Seminar/Presentation 8
Title of Seminar/Presentation:
Name of Presenter
Date:
Time:
Brief summary of the seminar/presentation (maximum 5 lines)

ZEIT4500 ENGINEERING PROJECT ASSESSMENT GUIDANCE

The following describe the expectations of performance in the final year project to achieve each of the grading levels. It is anticipated that students will satisfy different criteria at different levels. Assessment will take this into account when determining the final grade.

- It would be very rare for a student to gain a mark in excess of 90%, as this would be the work exhibited by a student of University Medal calibre.
- It may be the case that the project itself limits the attainment of high grades, no matter how much effort and insight the student may place. The scope of the project is to be negotiated, and defined by the Panel for the student at the outset.
- While intensive effort by the student will reap rewards and satisfaction, it is not the case that this alone results in 100%. The grading, as illustrated below, shows the academic merits and thoroughness that must be exhibited in order to attain a mark in the respective grade range.

HIGH DISTINCTION: An outstanding performance; mark range 85 - 100

The student has applied themselves extremely diligently to the problem. They have consulted extensively with the appropriate literature (journal papers, reports, standards, design documents etc) and very clearly identified the need for the project. They have constructed an excellent set of clear aims and, having considered various options, an appropriate methodology to carry out the project. They have very carefully planned the conduct of the project and closely managed this plan throughout its course. They have very carefully collected appropriate data of high quality either from physical or numerical experiments or from designs. They have very carefully reduced the data into a usable form. They have very carefully analysed the data or design using the appropriate engineering tools and methodologies and *thoroughly* assessed the levels of accuracy involved. They have used their own knowledge and that from the literature to intelligently interpret the results. They have drawn numerous insightful conclusions from the data analysis to clearly address the original aims, or employed novel methods in design. They have provided a comprehensive set of documentation with thoughtful recommendations for future extension of the work. They have very carefully and clearly presented their work in written form at a level that is equivalent to a publishable journal paper, or their design is functional within industry. They have demonstrated a very high degree of self-direction for *all* aspects of the project. **An outstanding piece of work.**

DISTINCTION: A superior performance; mark range 75 - 84

The student has applied themselves very diligently to the problem. They have consulted widely with the appropriate literature (journal papers, reports, standards, designs, etc.) and clearly identified the need for the project. They have constructed a clear set of aims and, having considered various options, an appropriate methodology to carry out the project. They have carefully planned the conduct of the project and managed this plan throughout its course. They have carefully collected appropriate data of good quality either from physical or numerical experiments or from designs. They have carefully reduced the data into a usable form. They have carefully analysed the data or design using the *appropriate* engineering tools and methodologies and assessed the levels of accuracy involved. They have drawn some insightful conclusions from the data analysis and/or design to clearly address the original aims. They have provided some thoughtful recommendations for future extension of the work. They have carefully and clearly presented their work in written form at a level that is equivalent to a publishable conference paper or their design will be made integral in an industrial setting. Their documentation is easily followed and work repeatable without extra effort. They have demonstrated a *good* degree of self-direction for many aspects of the project. **A very good piece of work.**

CREDIT: A good performance; mark range 65 - 74

The student has applied themselves quite diligently to the problem. They have consulted with the literature (journal papers, reports, standards, designs, etc.) and identified a need for the project. They have constructed some clear aims and, having considered various options, a reasonable methodology to carry out the project. They have planned the conduct of the project and managed this plan throughout its course. They have collected appropriate data of good quality either from physical or numerical experiments or from designs. They have reduced the data into a usable form. They have analysed the data or design using *some* appropriate engineering tools and methodologies and made some attempt to assess the levels of accuracy involved. They have drawn some useful conclusions from the data analysis and/or design to clearly address the original aims. They have provided some useful recommendations for future extension of the work. They have presented their work in written form at a *reasonably good* level though it may contain a number of errors. Their documentation would allow repetition of experiments and/or use of designs without significant further investigation. They have demonstrated a *reasonable* degree of self-direction for aspects of the project but some assistance has been required to complete routine tasks. **A good piece of work, showing a sound and thorough grasp of the subject matter, though possibly lacking in the breadth and depth required for a first-class mark.**

PASS: An acceptable level of performance; mark range 50 - 64

The student has applied themselves satisfactorily to the problem. They have consulted the literature (journal papers, reports, standards, designs etc) in only a cursory or directed manner to identify the need for the project. They have constructed a

satisfactory set of aims and, having considered various options, a methodology to carry out the project. They have made a reasonable attempt to plan the conduct of the project and made some limited attempt to manage this plan throughout its course. They have collected limited data either from physical or numerical experiments or from designs. They have made some attempt to reduce the data into a usable form. They have made some attempt to analyse the data or design but may not have attempted to assess its accuracy. They have drawn one or two acceptable conclusions from the data analysis in an attempt to address the original aims. They have made only a very limited attempt to recommend future extensions of the work. The future extensions are material that could have been covered in this scope. They have only presented their work satisfactorily in written form and it likely contains numerous errors. They have demonstrated little or no self-direction. Constant assistance has been required to complete routine tasks. ***A satisfactory piece of work but one that is missing many of the required components of good research, design, and analysis or those that are present are not of a high quality.***

FAIL: Unsatisfactory performance; mark range 40 - 49

The student has *not applied* themselves in a satisfactory manner to the project and has not demonstrated an ability to manage or conduct an engineering project or deliver a useful set of results or conclusions. They have not demonstrated sufficient skills and learning from earlier or concurrent courses. There is little or no original work. ***They have not satisfied the requirements for a pass grade.***

FAIL: A very poor performance; mark range < 40

A very *bad* piece of work, showing that the author has failed to engage seriously with any of the subject-matter involved, and/or demonstrates total confusion over the requirements of the work set. ***There is little or no original work.*** It is very unlikely that work of a passing standard would be produced even if the author were given the opportunity to repeat the work.

Partially based on: Course Outline, MGMT1104 Managing Across Cultures, Faculty of Commerce and Economics, School of Organisation and Management. UNSW Session 2, 2004, and Assessment Guidelines for ZEIT4500, A. Neely, 2010.