



UNSW Course Outline

ELEC4953 Research Thesis C - 2024

Published on the 29 May 2024

General Course Information

Course Code : ELEC4953

Year : 2024

Term : Term 2

Teaching Period : T2

Is a multi-term course? : No

Faculty : Faculty of Engineering

Academic Unit : School of Electrical Engineering & Telecommunications

Delivery Mode : In Person

Delivery Format : Standard

Delivery Location : Sydney

Campus : Sydney

Study Level : Undergraduate

Units of Credit : 4

Useful Links

[Handbook Class Timetable](#)

Course Details & Outcomes

Course Description

The thesis is an inquiry-based learning course that provides students with an opportunity to bring together and apply engineering principles learned over their previous years of study and professional experience to innovatively solve problems such as the development of a specific

design, process and/or the investigation of a hypothesis.

The thesis projects that students undertake are complex, open-ended problems that allow room for their creativity, and the acquisition, analysis, and interpretation of results. There are multiple possible solutions or conclusions at the outset that have sufficient complexity to require a degree of project planning from the students. The thesis requires students to formulate problems in scientific or engineering terms, manage a technical project and find solutions by applying scientific and engineering methods. It also allows them to develop the ability to work in a research and development environment.

This is the third course in the three-course thesis structure. Subject to making excellent progress in ELEC4951 and with the approval of your supervisor and Director of Academic Studies, you may be allowed to enrol in this course at the same time as ELEC4952.

Course Aims

The aim of the course is to enable students to: (a) develop critical thinking and knowledge in the academic and professional literature on a particular topic; (b) formulate problems in technical terms, manage the project, and find solutions by applying engineering and/or scientific methods; (c) explain how their projects fit within the discipline and broader societal context; (d) demonstrate their ability to work autonomously in a research and development environment; (e) communicate knowledge, skills, and ideas to professional and lay audiences.

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Develop a design or a process or investigate a hypothesis following industry and professional engineering standards.
CLO2 : Critically reflect on a specialist body of knowledge related to their thesis topic.
CLO3 : Apply scientific and engineering methods to solve an engineering problem.
CLO4 : Analyse data objectively using quantitative and mathematical methods.
CLO5 : Demonstrate oral and written communication in professional and lay domains.

Course Learning Outcomes	Assessment Item
CLO1 : Develop a design or a process or investigate a hypothesis following industry and professional engineering standards.	<ul style="list-style-type: none">• Thesis B• Final report• Thesis A• Poster
CLO2 : Critically reflect on a specialist body of knowledge related to their thesis topic.	<ul style="list-style-type: none">• Thesis B• Final report• Thesis A• Poster
CLO3 : Apply scientific and engineering methods to solve an engineering problem.	<ul style="list-style-type: none">• Thesis B• Final report• Thesis A• Poster
CLO4 : Analyse data objectively using quantitative and mathematical methods.	<ul style="list-style-type: none">• Thesis B• Final report• Thesis A• Poster
CLO5 : Demonstrate oral and written communication in professional and lay domains.	<ul style="list-style-type: none">• Thesis B• Final report• Thesis A• Poster

Learning and Teaching Technologies

Moodle - Learning Management System | Microsoft Teams

Other Professional Outcomes

The Course Learning Outcomes (CLOs) contribute to the Engineers Australia (National Accreditation Body) Stage I competencies as outlined below

Engineers Australia (EA), Professional Engineer Stage 1 Competencies

PE1: Knowledge and Skill Base:

PE1.1 Comprehensive, theory-based understanding of underpinning fundamentals: n/a

PE1.2 Conceptual understanding of underpinning maths, analysis, statistics, computing: CLO 1,3, 4.

PE1.3 In-depth understanding of specialist bodies of knowledge: CLO 1, 2, 3, 4, 5.

PE1.4 Discernment of knowledge development and research directions: CLO 2.

PE1.5 Knowledge of engineering design practice: CLO 1, 3.

PE1.6 Understanding of scope, principles, norms, accountabilities of sustainable engineering practice: CLO 1,3

PE2: Engineering Application Ability:

PE2.1 Application of established engineering methods to complex problem solving: CLO 1, 3, 4.

PE2.2 Fluent application of engineering techniques, tools and resources: CLO 1, 3, 4

PE2.3 Application of systematic engineering synthesis and design processes: CLO 1,3

PE2.4 Application of systematic approaches to the conduct and management of engineering projects: CLO 1,3

PE3: Professional and Personal Attributes:

PE3.1 Ethical conduct and professional accountability: CLO 1,2,5

PE3.2 Effective oral and written communication (professional and lay domains): CLO 2,5

PE3.3 Creative, innovative and pro-active demeanour: CLO 1,3,5

PE3.4 Professional use and management of information: n/a

PE3.5 Orderly management of self, and professional conduct: n/a

PE3.6 Effective team membership and team leadership: n/a

This course is also designed to provide the course learning outcomes which arise from targeted graduate capabilities. The targeted graduate capabilities broadly support the UNSW and Faculty of Engineering graduate capabilities (also listed below).

Targeted Graduate Capabilities

Electrical Engineering and Telecommunications programs are designed to address the following targeted capabilities which were developed by the school in conjunction with the requirements of professional and industry bodies:

- The ability to apply knowledge of basic science and fundamental technologies;
- The skills to communicate effectively, not only with engineers but also with the wider community;

- The capability to undertake challenging analysis and design problems and find optimal solutions;
- Expertise in decomposing a problem into its constituent parts, and in defining the scope of each part;
- A working knowledge of how to locate required information and use information resources to their maximum advantage;
- Proficiency in developing and implementing project plans, investigating alternative solutions, and critically evaluating differing strategies;
- An understanding of the social, cultural and global responsibilities of the professional engineer;
- The ability to work effectively as an individual or in a team;
- An understanding of professional and ethical responsibilities;
- The ability to engage in lifelong independent and reflective learning

UNSW Graduate Capabilities

The course delivery methods and course content directly or indirectly addresses a number of core UNSW graduate capabilities, as follows:

- Developing scholars who have a deep understanding of their discipline, through lectures and solution of analytical problems in tutorials and assessed by assignments and written examinations.
- Developing rigorous analysis, critique, and reflection, and ability to apply knowledge and skills to solving problems. These will be achieved by the laboratory experiments and interactive checkpoint assessments and lab exams during the labs.
- Developing capable independent and collaborative enquiry, through a series of tutorials spanning the duration of the course.
- Developing independent, self-directed professionals who are enterprising, innovative, creative and responsive to change, through challenging design and project tasks.
- Developing citizens who can apply their discipline in other contexts, are culturally aware and environmentally responsible, through interdisciplinary tasks, seminars and group activities

Additional Course Information

Credits

This is a 4 UOC, level 4 course. The expected workload is 10 hours per week throughout the 10-week term. It is important to note that the weighting applied to the course is equivalent to 8.7 UOC from the available overall 12 UOC for the Project course.

Relationship to Other Courses

This is a fourth-year core course for students following a BE (Electrical or Telecommunications or Quantum) program in the EE&T School and other combined degree programs. This course

constitutes the third part of the three-part Research Thesis work (parts A, B and C). It follows Research Thesis B, which involves completion of preliminary works (familiarisation with tools or equipment required for the project), refined solution, formulation of detailed research plan, and producing initial results of the detailed design and developmental work. In this course, the student will continue with the detailed design and developmental work and demonstrate the complete design or process or the result of investigated hypothesis.

Pre-requisites and Assumed Knowledge

The pre-requisite for this course is ELEC9452 which must have been completed in the immediate preceding term. ELEC9452 can also be a co-requisite course for students doing Research Thesis B and C together.

Following Courses

There are no following courses.

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Thesis B Assessment Format: Individual	10%	
Final report Assessment Format: Individual	62.5%	
Thesis A Assessment Format: Individual	17.5%	
Poster Assessment Format: Individual	10%	

Assessment Details

Thesis B

Assessment Overview

This is to indicate that the student would have already done the ELEC4952 (Thesis B) course, which contributes 10% to the overall weighting of the thesis.

Course Learning Outcomes

- CL01 : Develop a design or a process or investigate a hypothesis following industry and professional engineering standards.

- CLO2 : Critically reflect on a specialist body of knowledge related to their thesis topic.
- CLO3 : Apply scientific and engineering methods to solve an engineering problem.
- CLO4 : Analyse data objectively using quantitative and mathematical methods.
- CLO5 : Demonstrate oral and written communication in professional and lay domains.

Final report

Assessment Overview

The final report covers the literature review/background, execution of the research thesis, analysis, and discussion of results and conclusions. The report is to be submitted by week 10 of the term. This is done by uploading the report via Moodle as a pdf formatted file. The report must be individually written even in cases where a group of students works on the same topic.

The assessment will be done by the supervisor and an assessor whose marks are equally weighted. The assessor is an academic staff assigned by the school. The marking is done independently by each marker, without collusion or knowledge of the other mark. The marking is based on a standard rubric and feedback is given either verbally or through comments posted on Moodle.

Course Learning Outcomes

- CLO1 : Develop a design or a process or investigate a hypothesis following industry and professional engineering standards.
- CLO2 : Critically reflect on a specialist body of knowledge related to their thesis topic.
- CLO3 : Apply scientific and engineering methods to solve an engineering problem.
- CLO4 : Analyse data objectively using quantitative and mathematical methods.
- CLO5 : Demonstrate oral and written communication in professional and lay domains.

Submission notes

This assignment is submitted through Turnitin and students can see Turnitin similarity reports. Once the Turnitin similarity is below the acceptable 15%, the report is to be uploaded using "PART C REPORT ASSESSMENT" workshop tools for marking.

Assessment information

Literature review/background and putting the results in context:

Literature review (comprehensive, up-to-date, critical assessment of existing work), problem statement, hypothesis and aims.

Marking guide:

0-49: Aims not clear

50-64: Reason for research not clear

65-74: Background clear - results not contextualized

75-84: Background and aims are clear, context is incomplete

85-100: Background to research and significance of conclusions reached are clear

Execution of the project, quality of analysis, discussion of results:

Systematic approach to the work, logical thinking in gathering information, analyzing available information, formulating plans and solutions; level of underlying conceptual difficulty or complexity of the problem faced; level of workmanship or clever traits in modelling, design, experiment and testing solution to problem; attention to details, take care in getting results; results appear to be correct, meaningful; critical analysis and interpretation of results; self-criticism or reflection on the reliability or limitations of results.

Marking guide:

0-49: Clearly deficient

50-64: Superficial results, lacking intellectual engagement

65-74: Several components to the research work not coherently linked

75-84: Solid and coherent work, linking all the research components together into a consistent story

85-100: Solid, compelling, coherent and consistent story PLUS something unexpected

Conclusions and value added:

Quality of conclusions (relationship to content, merit as summary); any new discovery, creative thought, publications?

Marking guide:

0-49: No technical value

50-64: No interesting results

65-74: Minimal value

75-84: Will have wider impact when further work is done

85-100: Will have wider impact now

Assignment submission Turnitin type

This assignment is submitted through Turnitin and students can see Turnitin similarity reports.

Thesis A

Assessment Overview

This is to indicate that the student would have done the ELEC4951 (Thesis A) course which contributes 17.5% to the overall weighting of the thesis.

Course Learning Outcomes

- CLO1 : Develop a design or a process or investigate a hypothesis following industry and professional engineering standards.
- CLO2 : Critically reflect on a specialist body of knowledge related to their thesis topic.
- CLO3 : Apply scientific and engineering methods to solve an engineering problem.
- CLO4 : Analyse data objectively using quantitative and mathematical methods.
- CLO5 : Demonstrate oral and written communication in professional and lay domains.

Poster

Assessment Overview

Students must attend and exhibit their thesis work at the Open Day held in the School on Friday week 9 of the term. The exact time and place for the Open Day will be announced by email and on Moodle later in the term.

The assessment will be done by the supervisor and an assessor whose marks are equally weighted. The assessor is an academic staff assigned by the school. The marking is done independently by each marker, without collusion or knowledge of the other mark. The marking is based on a standard rubric and feedback is given either verbally or through comments posted on Moodle.

Course Learning Outcomes

- CLO1 : Develop a design or a process or investigate a hypothesis following industry and professional engineering standards.
- CLO2 : Critically reflect on a specialist body of knowledge related to their thesis topic.
- CLO3 : Apply scientific and engineering methods to solve an engineering problem.

- CLO4 : Analyse data objectively using quantitative and mathematical methods.
- CLO5 : Demonstrate oral and written communication in professional and lay domains.

Assessment information

Assessment criteria

The assessment is based on 5 criteria of equal weighting: rationale, content, demonstration, communication and question handling

RATIONALE:

Has the student been able to explain why the work was done?

Marking guide:

0-49: The student cannot explain why the work was done

50-64: The student attempts to explain why the work was done but you think they barely understand

65-74: Good, above satisfactory effort

75-84: The student is able to explain why the work was done in direct terms.

85-100: The student is able to explain the broader context that the work fits into, why it was done and how important it is

CONTENT:

How good is the work? Extent of applications of engineering methods?

Marking guide:

0-49: Work completely fails to address the stated aims

50-64: Work is trivial or was conducted incorrectly or with inappropriate use of engineering methods, placing conclusions in some doubt

65-74: Engineering methods were employed correctly in project, but with some weaknesses or omissions in the methods employed

75-84: Project professionally conducted using appropriate engineering methods

85-100: Quite challenging project conducted which required extensive use of high-level engineering methods

DEMONSTRATION:

Does it work? What new information was learned?

Marking guide:

0-49: Deficient, no tangible deliverable, not much to show, nothing learned

50-64: Satisfactory, maybe inconclusive but evidence of serious effort

65-74: Good show from which some credible conclusions can be drawn

75-84: Very good, professionally performed

85-100: Excellent, very convincing demonstration of a non-trivial project with valuable new results

COMMUNICATION:

How well is the work presented?

Marking guide:

0-49: Taken together, graphical and verbal dissemination of findings is so poor that you are left unsure what the work is about.

50-64: Some deficiencies: more than one of aims, methods, results and conclusions are not clear.

65-74: Aims, methods, results and conclusions are clear but only after probing. Some aspects of the poster or presentation were not well considered.

75-84: Aims, methods, results, conclusions are all clear. The poster is adequate.

85-100: Aims, methods, results, conclusions are all clear. The poster is excellent and attractive; the presentation is engaging

Q&A:

How well is the student able to answer questions?

Marking guide:

0-49: Unable to answer questions about the work or attempt to answer but clearly doesn't really understand

50-64: Able to answer questions but there are flaws. Nevertheless, you are fairly sure they understand what they're doing

65-74: Able to answer questions with only minor flaws; you are sure they have reasonably good understanding about their work

75-84: Able to answer questions easily and directly, almost flawless

85-100: Provide in-depth flawless answers that demonstrate commanding knowledge of the subject matter

General Assessment Information

Assessment is based on evaluating the student's work through the final report (85%) and the Online Open Day presentation (15% weighting).

The breakdowns for marking the report are as follows: (i) literature review/background (10%); (ii) execution of the research project, quality of analysis, discussion of results (50%); (iii) conclusions and value added (20%); and document presentation (20%).

The marking of the Online Open Day presentation is based on the quality of the Project poster, viva voice, and demonstration of the project work.

The assessment of the report and Online Open Day presentation will be carried out by the Project supervisor and the assessor whose marks are equally weighed. The assessor is an academic staff assigned by the School. The marking is done independently by each marker, without collusion or knowledge of the other mark.

The final Project report is to be submitted by 12pm (noon) Thursday week 10 of the term. This is done by uploading the report via Moodle as a pdf formatted file. The Project report must be

individually written even for cases where a group of students work on the same topic. If your supervisor or assessor specifically requests a printed copy of your report, please make one and hand it to them directly (but you still also need to upload your report).

The student must attend and exhibit his/her Project work at the Online Open Day held in the School on the Friday week 9 of the term. The exact time and place for the Online Open Day will be announced by e-mail and on Moodle later in the term.

Policy for lateness

The penalty is detailed below:

- For Online Open Day presentation - zero (0) mark is awarded
- For Project report - 5 marks off the Project 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 Project report (weekends count as days). Any Project report not turned in within 6 weeks after the deadline will be finalised at zero (0) marks.

In all cases, applications for late submission can be applied for BEFORE the due date. This is at the discretion of the Project coordinator but should only be granted in exceptional circumstances beyond the student's control. As per normal, students can also apply through myUNSW for special consideration.

Discrepancy amongst Project marks

The Online Open Day presentation mark is the unweighted average of the two marks. About the report mark:

- For mark difference less than or equal to 10 marks, the unweighted average is used.
- For mark difference of 11-15 marks, the Project Coordinator discusses with the two markers about why they gave their marks and assists the two markers to come to an agreement on a final mark.
- For any mark difference greater than 15 marks, a third assessor is used. An unweighted average of the three marks will be used.
- If the situation arises that one mark is invalid, the Project Coordinator has the discretion to eliminate that mark and average the other two (if they fall within the 10-mark difference)

Grading Basis

Standard

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 27 May - 2 June	Online Activity	<p>Provide Thesis/Project details for each assessment via Moodle course page 'ELEC9453/4953 Research Thesis C/Masters Project C- T1 2024' The detail include thesis/project topic, your name and supervisor's name. The details should be provided for each assessment. In this course, the assessments are POSTER PRESENTATION and PART C REPORT</p> <p>To provide the details for POSTER PRESENTATION, follow the steps below</p> <ul style="list-style-type: none">• Go to Poster Open Day (click to expand the section)• Click on POSTER PRESENTATION ASSESSMENT and follow the prompt <p>To provide the details for PART C REPORT ASSESSMENT, follow the steps below</p> <ul style="list-style-type: none">• Go to Project C Report (click to expand the section)• Click on PART C REPORT ASSESSMENT and follow the prompt
	Other	<ul style="list-style-type: none">• Weekly meetings during the term with supervisor for technical guidance on Project work• Laboratory work during the term subject to arrangement with technical staff
Week 2 : 3 June - 9 June	Other	<ul style="list-style-type: none">• Weekly meetings during the term with supervisor for technical guidance on Project work• Laboratory work during the term subject to arrangement with technical staff
Week 3 : 10 June - 16 June	Other	<ul style="list-style-type: none">• Weekly meetings during the term with supervisor for technical guidance on Project work• Laboratory work during the term subject to arrangement with technical staff
Week 4 : 17 June - 23 June	Other	<ul style="list-style-type: none">• Weekly meetings during the term with supervisor for technical guidance on Project work• Laboratory work during the term subject to arrangement with technical staff
Week 5 : 24 June - 30 June	Other	<ul style="list-style-type: none">• Weekly meetings during the term with supervisor for technical guidance on Project work• Laboratory work during the term subject to arrangement with technical staff
Week 6 : 1 July - 7 July	Other	<ul style="list-style-type: none">• Weekly meetings during the term with supervisor for technical guidance on Project work• Laboratory work during the term subject to arrangement with technical staff
Week 7 : 8 July - 14 July	Other	<ul style="list-style-type: none">• Weekly meetings during the term with supervisor for technical guidance on Project work• Laboratory work during the term subject to arrangement with technical staff
Week 8 : 15 July - 21 July	Other	<ul style="list-style-type: none">• Weekly meetings during the term with supervisor for technical guidance on Project work• Laboratory work during the term subject to arrangement with technical staff
Week 9 : 22 July - 28 July	Other	<ul style="list-style-type: none">• Weekly meetings during the term with supervisor for technical guidance on Project work• Laboratory work during the term subject to arrangement with technical staff
	Assessment	<ul style="list-style-type: none">• Friday: Poster Open Day, Time TBA. Activities: Project poster presentation, viva voce, demonstration of Project
Week 10 : 29 July - 4 August	Assessment	<ul style="list-style-type: none">• Friday: Poster Open Day, Time TBA. Activities: Project poster presentation, viva voce, demonstration of Project
	Other	<ul style="list-style-type: none">• Weekly meetings during the term with supervisor for technical guidance on Project work• Laboratory work during the term subject to arrangement with technical staff

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

General Schedule Information

Period Activity Weeks 1-5 Provide Thesis/Project details for each assessment via Moodle course page ÔT2 2023 ELEC9453/4953 Research Thesis C/Masters Project C' Provide thesis/project topic, your name and supervisor's name. The details should be provided for each assessment. In

this course, the assessments are POSTER PRESENTATION ASSESSMENT and PART C REPORT ASSESSMENT. To provide the details for POSTER PRESENTATION ASSESSMENT, follow the steps below Go to Poster Open Day (click to expand the section) Click on POSTER PRESENTATION ASSESSMENT and follow the prompt To provide the details for PART C REPORT ASSESSMENT, follow the steps below Go to Project C Report (click to expand the section) Click on PART C REPORT ASSESSMENT and follow the prompt Weeks 1-10 Weekly online meetings during the semester with supervisor for technical guidance on Project work Laboratory work during the semester subject to arrangement with technical staff Week 9 Friday: Online Open Day, Time TBA. Activities: Project poster presentation, viva voce, demonstration of Project Week 10 12pm Thursday: deadline for submission of Final Report, submit online via Moodle

Course Resources

Prescribed Resources

Recommended text(s):

Reading materials are specified by the supervisor (related to particular Project topic).

On-line resourcesMoodle

As a part of the teaching component, Moodle will be used to disseminate materials, host forums: <https://moodle.telt.unsw.edu.au/login/index.php>. All information about this course is available from this link which is regularly updated.

Mailing list

Announcements concerning course information will be given on Moodle and/or via email (which will be sent to your student email address).

ADDITIONAL INFORMATION ABOUT THE PROJECTProject Report Specification

- The report must be submitted as one single pdf file.
- Page size must be A4 (210 x 297 mm). Page margins must not be less than: 25mm (left and right edges), 25mm (upper edge), and 20mm (lower edge).
- Project must be prepared using a word processor, e.g Microsoft Office.
- The report must include a title page headed:

THE UNIVERSITY OF NEW SOUTH WALES

SCHOOL OF ELECTRICAL ENGINEERING AND TELECOMMUNICATIONS

Title of Project

Name of Author

Bachelor of Engineering (or other degree for which the Project is submitted)

Submission Date (month and year)

Supervisor: (followed by name)

- Immediately following the title page is the Project summary page. This summary sheet is designed to assist in determining the overall input by students into the Project work. The guidelines for completing the summary page and the summary form can be downloaded from the course website. Complete this form, sign and date it, scan the form, and insert into the Project report as the second page (after the title page).
- Students might like to include a page for acknowledgment. This would be the third page.
- All pages must be numbered. The main body of the Project must be numbered consecutively from beginning to end. Other sections must either be included or have their own logical numbering system.
- Graphs, diagrams and photographs should be inserted as close as possible to their first reference in the text. Rotated graphs etc are to be arranged so as to be conveniently read, with the bottom edge to the outside of the page.
- The author of the Project is responsible for the preparation of the Project before the deadline, proofreading the typescript and having corrections made as necessary.

Research Thesis Online Open Day

At the end of the course students are required to demonstrate their Project work and to answer questions from staff and students. It is compulsory for all students including those with topics of a theoretical nature to be present on the Research Thesis Online Open Day.

The Research Thesis Online Open Day is scheduled on the Friday week 9 of the term and demonstrations are normally carried out in the School laboratories. You should prepare a poster with appropriate diagrams and extracts from your Project to help in the explanation of the overall project as well as giving suitable demonstrations of particular aspects of your achievements.

The template for the poster and some examples of work by previous students are available on the course website. You have to make your own arrangement for poster printing through facilities available on or off-campus. When planning your Online Open Day presentation remember that, in addition to your assessors and other School academics, many visitors will be junior students

seeking information to help them choose their own Project topic.

If Things Go Wrong

If you start having serious problems, don't ignore them or stop working; the problems won't go away. Talk over your worries with your supervisor to see what you can do to get going again. If you are still not able to resolve the problems, then see the Project Coordinator, the Director of Academic Studies in EE&T or the Student Counseling and Careers Unit. The Learning Centre also offers advice and support on these matters. Often some advice or perhaps reducing the scope of the project can get you working effectively for the rest of the year.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Aron Michael		G17, 124	02 93855663	Monday 4:00pm-4:30 pm	No	Yes

Other Useful Information

Academic Information

I. Special consideration and supplementary assessment

If you have experienced an illness or misadventure beyond your control that will interfere with your assessment performance, you are eligible to apply for Special Consideration prior to, or within 3 working days of, submitting an assessment or sitting an exam.

Please note that UNSW has a Fit to Sit rule, which means that if you sit an exam, you are declaring yourself fit enough to do so and cannot later apply for Special Consideration.

For details of applying for Special Consideration and conditions for the award of supplementary assessment, please see the information on UNSW's [Special Consideration page](#).

II. Administrative matters and links

All students are expected to read and be familiar with UNSW guidelines and policies. In particular, students should be familiar with the following:

- [Attendance](#)
- [UNSW Email Address](#)
- [Special Consideration](#)
- [Exams](#)
- [Approved Calculators](#)
- [Academic Honesty and Plagiarism](#)
- [Equitable Learning Services](#)

III. Equity and diversity

Those students who have a disability that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the course convener prior to, or at the commencement of, their course, or with the Equity Officer (Disability) in the Equitable Learning Services. Issues to be discussed may include access to materials, signers or note-takers, the provision of services and additional exam and assessment arrangements. Early notification is essential to enable any necessary adjustments to be made.

IV. Professional Outcomes and Program Design

Students are able to review the relevant professional outcomes and program designs for their streams by going to the following link: <https://www.unsw.edu.au/engineering/student-life/student-resources/program-design>.

Note: This course outline sets out the description of classes at the date the Course Outline is published. The nature of classes may change during the Term after the Course Outline is published. Moodle or your primary learning management system (LMS) should be consulted for the up-to-date class descriptions. If there is any inconsistency in the description of activities between the University timetable and the Course Outline/Moodle/LMS, the description in the Course Outline/Moodle/LMS applies.

Academic Honesty and Plagiarism

UNSW has an ongoing commitment to fostering a culture of learning informed by academic integrity. All UNSW students have a responsibility to adhere to this principle of academic integrity. Plagiarism undermines academic integrity and is not tolerated at UNSW. *Plagiarism at UNSW is defined as using the words or ideas of others and passing them off as your own.*

Plagiarism is a type of intellectual theft. It can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement. UNSW has produced a website

with a wealth of resources to support students to understand and avoid plagiarism, visit: student.unsw.edu.au/plagiarism. The Learning Centre assists students with understanding academic integrity and how not to plagiarise. They also hold workshops and can help students one-on-one.

You are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting and the proper referencing of sources in preparing all assessment tasks.

Repeated plagiarism (even in first year), plagiarism after first year, or serious instances, may also be investigated under the Student Misconduct Procedures. The penalties under the procedures can include a reduction in marks, failing a course or for the most serious matters (like plagiarism in an honours thesis or contract cheating) even suspension from the university. The Student Misconduct Procedures are available here:

www.gs.unsw.edu.au/policy/documents/studentmisconductprocedures.pdf

Submission of Assessment Tasks

Work submitted late without an approved extension by the course coordinator or delegated authority is subject to a late penalty of five percent (5%) of the maximum mark possible for that assessment item, per calendar day.

The late penalty is applied per calendar day (including weekends and public holidays) that the assessment is overdue. There is no pro-rata of the late penalty for submissions made part way through a day. This is for all assessments where a penalty applies.

Work submitted after five days (120 hours) will not be accepted and a mark of zero will be awarded for that assessment item.

For some assessment items, a late penalty may not be appropriate. These will be clearly indicated in the course outline, and such assessments will receive a mark of zero if not completed by the specified date. Examples include:

- Weekly online tests or laboratory work worth a small proportion of the subject mark;
- Exams, peer feedback and team evaluation surveys;
- Online quizzes where answers are released to students on completion;
- Professional assessment tasks, where the intention is to create an authentic assessment that

- has an absolute submission date; and,
- Pass/Fail assessment tasks.

Faculty-specific Information

[Engineering Student Support Services](#) – The Nucleus - enrolment, progression checks, clash requests, course issues or program-related queries

[Engineering Industrial Training](#) – Industrial training questions

[UNSW Study Abroad](#) – study abroad student enquiries (for inbound students)

[UNSW Exchange](#) – student exchange enquiries (for inbound students)

[UNSW Future Students](#) – potential student enquiries e.g. admissions, fees, programs, credit transfer

Phone

(+61 2) 9385 8500 – Nucleus Student Hub

(+61 2) 9385 7661 – Engineering Industrial Training

(+61 2) 9385 3179 – UNSW Study Abroad and UNSW Exchange (for inbound students)

School-specific Information

General Conduct and Behaviour

Consideration and respect for the needs of your fellow students and teaching staff is an expectation. Conduct which unduly disrupts or interferes with a class is not acceptable and students may be asked to leave the class.

Use of AI for assessments

Your work must be your own. If you use AI in the writing of your assessment, you must acknowledge this and your submission must be substantially your own work. More information can be found on this [website](#).

Workplace Health & Safety (WHS)

WHS for students and staff is of utmost priority. Most courses involve laboratory work. You must follow the [rules about conduct in the laboratory](#). About COVID-19, advice can be found on this [website](#).

School Contact Information

Consultations: Lecturer consultation times will be advised during the first lecture. You are welcome to email the tutor or laboratory demonstrator, who can answer your questions on this course and can also provide you with consultation times. ALL email enquiries should be made from your student email address with ELEC/TELEXXXX in the subject line; otherwise they will not be answered.

Keeping Informed: Announcements may be made during classes, via email (to your student email address) and/or via online learning and teaching platforms – in this course, we will use Moodle <https://moodle.telt.unsw.edu.au/login/index.php>. Please note that you will be deemed to have received this information, so you should take careful note of all announcements.

Student Support Enquiries

[For enrolment and progression enquiries please contact Student Services](#)

Web

[Electrical Engineering Homepage](#)