



## UNSW Course Outline

# ELEC1111 Electrical Circuit Fundamentals - 2024

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## General Course Information

**Course Code :** ELEC1111

**Year :** 2024

**Term :** Term 3

**Teaching Period :** T3

**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 :** Kensington

**Campus :** Sydney

**Study Level :** Postgraduate, Undergraduate

**Units of Credit :** 6

### Useful Links

[Handbook Class Timetable](#)

## Course Details & Outcomes

### Course Description

Can you imagine your life without electricity, computers or mobile phones? Circuits are all around us. Electrical engineers are most commonly associated with the development of circuits, but they are not the only ones who know about or work with circuits. All engineers need to have a

basic understanding of the relationship between electricity, electrical energy, electronic instrumentation, and measurements. Mechanical engineers use circuits, for example, when designing motors or controls for spacecrafts. Robotics is closely related to Computer Science, but it is hard to imagine doing anything in robotics without considerable knowledge of electrical circuits.

ELEC1111 is an introductory course in Electrical Engineering. It provides an introduction to fundamental analogue electrical elements such as sources, resistors, capacitors, inductors and diodes, as well as fundamental circuit analysis techniques, including Ohm's and Kirchhoff's laws, nodal and mesh analysis and circuit theorems (superposition, source transformation, Thévenin & Norton equivalents). It then expands to fundamental analogue circuits including resistor-capacitor (RC) and resistor-inductor (RL) circuits and operational amplifiers, and AC analysis concepts, including phasors, impedances and AC power.

## Course Aims

At the end of the course you should be able to:

- Have an overview of what can be achieved with electrical engineering.
- Understand elementary concepts of electrical circuits and their analysis, which will lead to a better understanding of higher-level circuits.
- Be familiar with basic laboratory equipment and techniques to measure electrical quantities.

## Relationship to Other Courses

This is a 1st year course in the School of Electrical Engineering and Telecommunications. It is an introduction to electrical engineering, not only for Electrical and Telecommunications Engineering students, but also for other engineering disciplines across the faculty. It is a requisite for many other courses both in electrical and other engineering schools.

# Course Learning Outcomes

Course Learning Outcomes
CL01 : Systematically analyse DC and AC electrical circuits by deriving and solving equations using circuit laws and theorems
CL02 : Obtain the transient and steady state behaviour of a first order circuit
CL03 : Apply phasors and sinusoidal steady state analysis to AC circuits
CL04 : Apply concepts of DC and AC circuit analysis in circuits with ideal operational amplifiers
CL05 : Demonstrate competency in building basic electrical circuits, operate fundamental electrical engineering equipment, work in a laboratory environment and follow work, health and safety (WHS) regulations
CL06 : Evaluate relevant information to design simple engineering systems that use electrical circuits
CL07 : Validate analysis results experimentally and/or using basic simulation software

Course Learning Outcomes	Assessment Item
CL01 : Systematically analyse DC and AC electrical circuits by deriving and solving equations using circuit laws and theorems	<ul style="list-style-type: none"> <li>• Weekly Online Quizzes</li> <li>• Laboratory Assessment and Exam</li> <li>• Midterm Exam</li> <li>• Final Exam</li> </ul>
CL02 : Obtain the transient and steady state behaviour of a first order circuit	<ul style="list-style-type: none"> <li>• Weekly Online Quizzes</li> <li>• Midterm Exam</li> <li>• Final Exam</li> </ul>
CL03 : Apply phasors and sinusoidal steady state analysis to AC circuits	<ul style="list-style-type: none"> <li>• Weekly Online Quizzes</li> <li>• Midterm Exam</li> <li>• Final Exam</li> </ul>
CL04 : Apply concepts of DC and AC circuit analysis in circuits with ideal operational amplifiers	<ul style="list-style-type: none"> <li>• Laboratory Assessment and Exam</li> <li>• Weekly Online Quizzes</li> <li>• Final Exam</li> </ul>
CL05 : Demonstrate competency in building basic electrical circuits, operate fundamental electrical engineering equipment, work in a laboratory environment and follow work, health and safety (WHS) regulations	<ul style="list-style-type: none"> <li>• Laboratory Assessment and Exam</li> </ul>
CL06 : Evaluate relevant information to design simple engineering systems that use electrical circuits	<ul style="list-style-type: none"> <li>• Midterm Exam</li> <li>• Weekly Online Quizzes</li> <li>• Final Exam</li> </ul>
CL07 : Validate analysis results experimentally and/or using basic simulation software	<ul style="list-style-type: none"> <li>• Laboratory Assessment and Exam</li> </ul>

# Learning and Teaching Technologies

Moodle - Learning Management System | Echo 360 | Microsoft Teams

## Other Professional Outcomes

Engineers Australia, Professional Engineer Stage 1 Competencies

The learning outcomes of this course contribute to your development of the following EA competencies:

	EA Stage 1 Competencies	Course Learning Outcomes (CLOs)
PE1: Knowledge and Skill Base	PE1.1 Comprehensive, theory-based understanding of underpinning fundamentals	1, 2, 3, 4, 5, 6, 7
PE1.2 Conceptual understanding of underpinning maths, analysis, statistics, computing		1, 2, 3, 4, 6
PE1.3 In-depth understanding of specialist bodies of knowledge		1, 2, 3, 4, 5, 6, 7
PE1.4 Discernment of knowledge development and research directions		
PE1.5 Knowledge of engineering design practice		
PE1.6 Understanding of scope, principles, norms, accountabilities of sustainable engineering practice		
PE2: Engineering Application Ability	PE2.1 Application of established engineering methods to complex problem solving	1, 2, 3, 4, 6
PE2.2 Fluent application of engineering techniques, tools and resources		1, 2, 3, 4, 5, 6, 7
PE2.3 Application of systematic engineering synthesis and design processes		
PE2.4 Application of systematic approaches to the conduct and management of engineering projects		
PE3: Professional and Personal Attributes	PE3.1 Ethical conduct and professional accountability	
PE3.2 Effective oral and written communication (professional and lay domains)		5, 6
PE3.3 Creative, innovative and pro-active demeanour		5, 6, 7
PE3.4 Professional use and management of information		
PE3.5 Orderly management of self, and professional conduct		
PE3.6 Effective team membership and team leadership		

# Additional Course Information

## Contact Hours

- Lectures (LEC) (in-person): 4 hours every week, starting from Week 1.
- Workshops (WKS) (in-person): 1.5 hours every week, starting from Week 1.
- Laboratories (LAB) (in-person): 1 hour pre-work + 2 hours of lab every week, starting from Week 1.

## Workload

ELEC1111 is a 6 UoC course. The expected average workload is approximately 15 hours per week throughout the 10-week term, including class contact hours (lectures, workshops and laboratories) and self-studying.

## Pre-requisites and Assumed Knowledge

There are no particular pre-requisites for this subject, but it is essential to have physics and mathematics background at high-school level.

## Following Courses

This course is a co-requisite for Circuits and Signals (ELEC2134) and Digital Circuit Design (ELEC2141).

## Learning in this course

You are expected to attend all lectures, workshops, labs and the mid-term exam in order to maximise learning. You must prepare well for your labs. The importance of adequate preparation prior to each lab cannot be overemphasized, as the effectiveness and usefulness of the lab depends to a large extent on this preparation. You must also prepare well for your workshops. In addition to the lecture notes/videos, you should read relevant sections of the recommended text. Reading additional texts will further enhance your learning experience. UNSW assumes that self-directed study of this kind is undertaken in addition to attending classes. *Group learning/study and collaboration throughout the course is strongly encouraged.*

- **Lectures:** Lectures are interactive and require student input. Recorded lecture videos will be made available to students after the scheduled lecture has concluded. Students should note that watching recordings is no substitute for attending the lectures, where live questions can be asked, and problems will be solved collectively. Note that having access to recorded lectures does not imply improved exam preparation, without significant and consistent

additional selfdirected study through the term.

- **Workshops (WKS):** These sessions will run as problem-solving sessions, where problems will be solved collectively. The tutors will mentor the students to solve the questions correctly.
- **Laboratory sessions (LAB):** The laboratory schedule is deliberately designed to provide practical, hands-on exposure to the concepts conveyed in lectures soon after they are covered in class. The labs are an integral part of learning in this course as they allow you to, first, analyse circuits based on what was explained in the lecture (analytical part of the lab), and then, build/configure, measure, and observe in real life the previously analysed circuits (practical part of of the lab). You are expected to attend all labs, and the lab exam. You must prepare well for your lab classes as your work will be assessed during each session.

**NOTE: *There is no laboratory exemption for this course.*** Regardless of whether equivalent labs have been completed in previous terms, all students enrolled in this course must take the labs. If, for medical reasons (note that a valid medical certificate must be provided), you are unable to attend a lab, you will need to apply for a catch-up, as agreed with the laboratory coordinator.

If you have any questions regarding your laboratory session allocation, please send an email to: [ELEC1111\\_lab\\_queries@unsw.edu.au](mailto:ELEC1111_lab_queries@unsw.edu.au)

# Assessments

## Assessment Structure

Assessment Item	Weight	Relevant Dates
Weekly Online Quizzes Assessment Format: Individual	10%	
Laboratory Assessment and Exam Assessment Format: Individual	25%	
Midterm Exam Assessment Format: Individual	20%	Start Date: 10/10/2024 09:00 AM Due Date: 10/10/2024 11:00 AM
Final Exam Assessment Format: Individual	45%	

## Assessment Details

### Weekly Online Quizzes

#### Assessment Overview

Weekly online quizzes test your understanding of the material covered in the corresponding topic. They are useful to consolidate your learning, build your knowledge, and make decisions concerning your studies early in the term. Marks will be assigned according to the correctness of the responses. Multiple attempts are allowed, and immediate right/wrong feedback will be

provided after each attempt. Detailed step-by-step solutions will be automatically released after the closing time.

### **Course Learning Outcomes**

- CL01 : Systematically analyse DC and AC electrical circuits by deriving and solving equations using circuit laws and theorems
- CL02 : Obtain the transient and steady state behaviour of a first order circuit
- CL03 : Apply phasors and sinusoidal steady state analysis to AC circuits
- CL04 : Apply concepts of DC and AC circuit analysis in circuits with ideal operational amplifiers
- CL06 : Evaluate relevant information to design simple engineering systems that use electrical circuits

### **Detailed Assessment Description**

There is one online quiz per topic (9 in total), starting from week 1. Students have infinite attempts.

### **Assessment information**

A late penalty is not applicable to quizzes since answers are released to students immediately after the due date. If a quiz is not completed by the specified date, the assessment item will receive a mark of zero.

### **Assignment submission Turnitin type**

This is not a Turnitin assignment

### **Generative AI Permission Level**

#### **No Assistance**

This assessment is designed for you to complete without the use of any generative AI. You are not permitted to use any generative AI tools, software or service to search for or generate information or answers.

For more information on Generative AI and permitted use please see [here](#).

## **Laboratory Assessment and Exam**

### **Assessment Overview**

The laboratory assessment, which consist of weekly laboratory tasks, is designed to check your knowledge as you progress through each stage of such laboratory tasks. Marking will be done with a rubric. Feedback will be provided in class during marking.

A practical exam will take place at the end of the term to check whether you have achieved the

practical learning outcomes for the course. The exam will be based on what you have learned in your laboratory classes and the applied theory from lectures. Marks will be awarded for the correct understanding of practical and relevant theoretical concepts, correct operation of laboratory equipment, and correct interpretation of measured results. Feedback will be provided in class during marking.

### Course Learning Outcomes

- CL01 : Systematically analyse DC and AC electrical circuits by deriving and solving equations using circuit laws and theorems
- CL04 : Apply concepts of DC and AC circuit analysis in circuits with ideal operational amplifiers
- CL05 : Demonstrate competency in building basic electrical circuits, operate fundamental electrical engineering equipment, work in a laboratory environment and follow work, health and safety (WHS) regulations
- CL07 : Validate analysis results experimentally and/or using basic simulation software

### Detailed Assessment Description

**NOTE:** Students **MUST** upload the completed work health and safety (WHS) form to the submission page provided on Moodle before attending the first practical laboratory session in order to be assessed.

### **Weekly laboratory Assessment**

The laboratory assessment comprises two parts:

1. Analytical questions: These are questions that must be completed before attending the practical session (pre-work) and will be marked in-class during the practical session.
2. Lab experiments: The experimental part must be completed in a two-hour session and will be marked in-class.

The laboratory assessment accounts for 15% of the total course mark out of the 25% allocated mark.

### **Laboratory Exam**

In **Week 9**, after the first 6 labs have been completed, a **practical exam** will take place to check whether you have achieved the practical learning outcomes for the course. The exam will be based on what you have learned in your lab classes and the applied theory from lectures. Marks will be awarded for the correct understanding of practical and relevant theoretical concepts, correct operation of laboratory equipment, and correct interpretation of measured results.



The lab exam accounts for 10% of your total course mark out of the 25% allocated mark.

### Assignment submission Turnitin type

This is not a Turnitin assignment

### Hurdle rules

You **MUST**:

- attend and attempt at least 6 out of the 7 labs (Introductory Lab excluded), **AND**
- pass the practical lab exam.

### Generative AI Permission Level

#### **Planning/Design Assistance**

You are permitted to use generative AI tools, software or services to generate initial ideas, structures, or outlines. However, you must develop or edit those ideas to such a significant extent that what is submitted is your own work, i.e., what is generated by the tool, software or service should not be a part of your final submission. You should keep copies of your iterations to show your Course Authority if there is any uncertainty about the originality of your work.

If your Convenor has concerns that your answer contains passages of AI-generated text or media that have not been sufficiently modified you may be asked to explain your work, but we recognise that you are permitted to use AI generated text and media as a starting point and some traces may remain. If you are unable to satisfactorily demonstrate your understanding of your submission you may be referred to UNSW Conduct & Integrity Office for investigation for academic misconduct and possible penalties.

For more information on Generative AI and permitted use please see [here](#).

## **Midterm Exam**

### Assessment Overview

The mid-term examination tests your general understanding of the course material, and it is designed to give you feedback on your progress through the analytical components of the course. Questions may be drawn from any material already covered in the course schedule. Marks will be assigned according to the correctness of the responses. Feedback will be provided via an exam review session and the exam will be solved and discussed in detail in a workshop session.

### Course Learning Outcomes

- CL01 : Systematically analyse DC and AC electrical circuits by deriving and solving equations using circuit laws and theorems

- CLO2 : Obtain the transient and steady state behaviour of a first order circuit
- CLO3 : Apply phasors and sinusoidal steady state analysis to AC circuits
- CLO6 : Evaluate relevant information to design simple engineering systems that use electrical circuits

### **Detailed Assessment Description**

The midterm exam assessment accounts for 20% of the total course mark, from which:

- 17.5% will be from the mark received from the markers based on the correctness of the responses, and
- 2.5% will be from a self-marking task where students will be asked to use the exam solution and rubric to self-evaluate.

### **Submission notes**

The midterm examination is in-person during lecture time (as specified) while the self-marking task is done through Moodle.

### **Assessment information**

The self-marking task is a pass/fail assessment, and as such, a late penalty is not applicable. If the task is not completed, it will receive a mark of zero.

### **Assignment submission Turnitin type**

This is not a Turnitin assignment

### **Generative AI Permission Level**

**Not Applicable**

Generative AI is not considered to be of assistance to you in completing this assessment. If you do use generative AI in completing this assessment, you should attribute its use.

For more information on Generative AI and permitted use please see [here](#).

## **Final Exam**

### **Assessment Overview**

The final examination tests analytical and critical thinking and general understanding of the course material. Questions may be drawn from any aspect of the course that has been presented in lectures, workshops and/or laboratories, unless specifically indicated otherwise by the lecturer. Marks will be assigned according to the correctness of the responses.

### **Course Learning Outcomes**

- CLO1 : Systematically analyse DC and AC electrical circuits by deriving and solving equations using circuit laws and theorems

- CLO2 : Obtain the transient and steady state behaviour of a first order circuit
- CLO3 : Apply phasors and sinusoidal steady state analysis to AC circuits
- CLO4 : Apply concepts of DC and AC circuit analysis in circuits with ideal operational amplifiers
- CLO6 : Evaluate relevant information to design simple engineering systems that use electrical circuits

#### **Assignment submission Turnitin type**

This is not a Turnitin assignment

#### **Hurdle rules**

You **MUST** achieve a minimum of 40 marks out of 100 in the final exam to pass the course.

#### **Generative AI Permission Level**

**Not Applicable**

Generative AI is not considered to be of assistance to you in completing this assessment. If you do use generative AI in completing this assessment, you should attribute its use.

For more information on Generative AI and permitted use please see [here](#).

## **General Assessment Information**

#### **Grading Basis**

Standard

# Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 9 September - 15 September	Other	<ul style="list-style-type: none"><li>• Lectures: Wed: Introduction &amp; Circuit Basics (Current, Voltage) Thurs: Circuit Basics (Power, Energy) &amp; Basic Elements (sources, Resistors, Diodes)</li><li>• Workshop 1</li><li>• Introductory Lab</li><li>• Quiz 1</li></ul>
Week 2 : 16 September - 22 September	Other	<ul style="list-style-type: none"><li>• Lectures: Wed: KCL, KVL, Series Parallel Circuits, Dividers Thurs: Mesh &amp; Nodal Analysis</li><li>• Workshop 2</li><li>• Lab 1 - Familiarisation</li><li>• Quiz 2</li></ul>
Week 3 : 23 September - 29 September	Other	<ul style="list-style-type: none"><li>• Lectures: Wed: Circuit Theorems - Superposition, Source Transfer &amp; Thévenin Thurs: Circuit Theorems - Norton, Max. Power Transfer</li><li>• Workshop 3</li><li>• Lab 2 - Basic Elements</li><li>• Quiz 3</li></ul>
Week 4 : 30 September - 6 October	Other	<ul style="list-style-type: none"><li>• Lectures: Wed: Capacitors &amp; RC Circuit Natural Response Thurs: RC Circuit Step Response</li><li>• Workshop 4</li><li>• Lab 3 - V-I characteristics &amp; Basic Laws</li><li>• Quiz 4</li></ul>
Week 5 : 7 October - 13 October	Other	<ul style="list-style-type: none"><li>• Lectures: Wed: Inductors &amp; RL Circuit Natural Response Thurs: Mid-term Exam, RL Circuit Step Response (Recorded)</li><li>• Workshop 5</li><li>• Lab 4 - Circuit Theorems</li><li>• Quiz 5</li></ul>
Week 6 : 14 October - 20 October	Other	<ul style="list-style-type: none"><li>• Flexibility week</li><li>• Open Labs and catch-up sessions</li></ul>
Week 7 : 21 October - 27 October	Other	<ul style="list-style-type: none"><li>• Lectures: Wed &amp; Thurs: Operational Amplifiers</li><li>• Workshop 6</li><li>• Lab 5 - First Order Circuits</li><li>• Quiz 6</li><li>• Midterm self-marking task due</li></ul>
Week 8 : 28 October - 3 November	Other	<ul style="list-style-type: none"><li>• Lectures: Wed &amp; Thurs: AC Analysis I - Phasors &amp; Impedance</li><li>• Workshop 7</li><li>• Lab 6 - Operational Amplifiers</li><li>• Quiz 7</li></ul>
Week 9 : 4 November - 10 November	Other	<ul style="list-style-type: none"><li>• Lectures: Wed &amp; Thurs: AC Analysis II - Circuit Theorems &amp; AC Op-Amps</li><li>• Workshop 8</li><li>• Lab Exam</li><li>• Quiz 8</li></ul>
Week 10 : 11 November - 17 November	Other	<ul style="list-style-type: none"><li>• Lectures: Wed &amp; Thurs: AC Power</li><li>• Workshop 9</li><li>• Lab 7 - AC Circuits</li><li>• Quiz 9</li></ul>

## Attendance Requirements

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

## Course Resources

### Prescribed Resources

#### Textbooks

#### *Prescribed textbook*

- C. K. Alexander and M. N. O. Sadiku, Fundamentals of Electric Circuits, 7th ed., New York, NY, USA: McGraw-Hill, 2021.

Available at UNSW Bookshop, UNSW Library, McGraw-Hill website, or online retailers.

### ***Other reference books***

- R. C. Dorf and J. A. Svoboda, Introduction to Electric Circuits, 9th ed., Hoboken, NJ: John Wiley and Sons, 2013.
- J. D. Irwin and R. M. Nelms, Basic Engineering Circuit Analysis, 11th ed., Hoboken, NJ: John Wiley and Sons, 2015.

### **On-line resources**

#### ***Moodle***

As a part of the teaching component, the online teaching and learning management system known as Moodle will be used to disseminate teaching materials and host forums. As the course progresses, students' marks from assessments such as labs and the quizzes will also be made available via Moodle: <https://moodle.telt.unsw.edu.au/login/index.php>.

#### ***Simulation***

Students are **strongly encouraged to familiarise** themselves with simulation tools, as well as measuring and interpreting results of simulations.

There are several simulation programs that can be used not only for this course, but also for the rest of your Electrical Engineering degree. One online simulation platform is a browser-based applet for simulation of electric circuits available at <http://www.falstad.com/circuit>. It is a simple-to-use and easy-to-understand online application that allows you to simulate simple electric circuits. It is also very simple to share cases and simulations with others. For those of you looking for a more sophisticated software to perform simulations, you can refer to MATLAB and Simulink: <https://au.mathworks.com>, LabVIEW: <https://www.ni.com/en-au/shop/labview.html>, OrCAD PSpice Designer: <https://www.orcad.com/products/orcad-pspice-designer/overview>, and Quite Universal Circuit Simulator: <https://qucs.sourceforge.net>. PSpice, MATLAB, and LabVIEW are most commonly used programming software in Electrical Engineering, which are worth learning at early stages in your degree.

## **Course Evaluation and Development**

This course is under constant revision in order to improve the learning outcomes for all students.

Please forward any feedback (positive or negative) on the course to the course convenor or via the online student survey myExperience. You can also provide feedback to ELSOC who will raise your concerns at student focus group meetings. As a result of previous feedback obtained for this course and in our efforts to provide a rich and meaningful learning experience, we have continued to evaluate and modify our delivery and assessment methods.

Some changes made in Term 3, 2024 in response to previous feedback include:

- Restructuring the lab sessions. The analytical part is now considered pre-work and is marked in-class, together with your practical work.
- Increased demonstrator-to-student ratio to reduce waiting time during labs.

## Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Dr. Wendy Lee		Room 312, Level 3, Electrical Engineering (G17)		By appointment via email	Yes	Yes
Lab staff	ELEC1111 Lab Queries Team					No	No
Lecturer	Inma Tomeo-Reyes		Room 414, Level 4, Electrical Engineering Building (G17)		By appointment, Course Content queries only.	No	No

## 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](https://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](https://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](#)