UNSW Course Outline

ELEC4613 Electrical Drive Systems - 2024

Published on the 20 May 2024

General Course Information

Course Code : ELEC4613
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 : Kensington
Campus : Sydney
Study Level : Postgraduate, Undergraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

If you see yourself as the expert driving the 5th industrial revolution that promotes sustainable development and the most sought-after professional in transport electrification, you have come to the right place. A high level of automation that you see in a self-driving electric car, robotic

arms in the industrial process or wind energy conversion is possible by efficient control of electric motor drives. Electrically actuated processes and systems deliver high energy efficiency, product quality, and highly flexible and high-volume production of items that are used every day.

The course is offered as an elective to undergraduate and postgraduate electrical engineering students aspiring to specialise in power engineering. In this course, you will gain knowledge of variable-speed drives and motion control systems used in many industrial processes. The course stresses the basic understanding of the characteristics of machines driven by appropriate power electronic converters and controllers. You will explore the steady-state behaviour and the design of high-performance drives. The dynamic issues and control system design will also be covered. You will gain hands-on experience via lab experiments and computer modelling of motor drive systems using simulation platforms such as MATLAB-Simulink.

Course Aims

Electric Drive Systems are an essential part of industrial processes, electric traction systems, wind energy conversion systems, motion control systems, and domestic appliances. The course aims to establish a good fundamental understanding of electrical drive systems and build capability and skills relevant to motor drive systems. Students will become familiar with various DC and 3-phase AC motor controls, considering both steady-state and dynamic models. The course starts with the fundamentals of drive systems and examines in detail the steady-state control of DC motors, brushless DC motors, 3-phase induction, and synchronous motors. The issues related to the approach with steady-state models are highlighted, which then leads to modern dynamic model-based controls such as field-oriented control (FOC) of the AC motors.

Relationship to Other Courses

The course provides specialisation to electric motor-drive system. Generally, this course is offered as a combined L4 electrive course to students of undergraduate and postgraduate engineering program at UNSW, more specifically to the students of electrica engineering.

Pre-requisites and Assumed Knowledge

Students taking the course ELEC4613 will have successfully completed a course on electrical machines (DC, Induction and Synchronous machines), e.g. ELEC3105 at UNSW. It is also assumed that students have some knowledge of Power Electronics and Control Systems.

Following Courses

Knowledge gained in the course will be useful to students doing thesis and design projects on Power Engineering.

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Explain fundamental elements of drive systems and their interactions
CLO2 : Analyse steady-state and dynamic performance characteristics of DC, Synchronous and Induction motor drives supplied from appropriate converters
CLO3 : Develop skills in selecting and designing important elements (e.g., appropriate motor type, controller, converter) of a drive system.
CLO4 : Design hierarchical torque, speed and position controllers for converter driven motor drive systems.

Course Learning Outcomes	Assessment Item
CLO1 : Explain fundamental elements of drive systems and their interactions	• Laboratory • Mid-term Test • Assignment • Final Examination
CLO2 : Analyse steady-state and dynamic performance characteristics of DC, Synchronous and Induction motor drives supplied from appropriate converters	• Laboratory • Mid-term Test • Assignment • Final Examination
CLO3 : Develop skills in selecting and designing important elements (e.g., appropriate motor type, controller, converter) of a drive system.	• Mid-term Test • Assignment • Final Examination
CLO4 : Design hierarchical torque, speed and position controllers for converter driven motor drive systems.	• Assignment • Final Examination

Learning and Teaching Technologies

Moodle - Learning Management System | Microsoft Teams

Learning and Teaching in this course

You are expected to attend all lectures, workshops, and labs to maximise your learning. You must prepare well for your laboratory classes, and your lab work will be assessed. In addition to the lecture notes, you should also read relevant sections of the recommended text. Reading additional texts will further enhance your learning experience. Group learning is encouraged. UNSW assumes that self-directed study of this kind is undertaken in addition to attending the

three modes of course deliveries throughout the course.

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
PE1.2 Conceptual understanding of underpinning maths, analysis, statistics, computing		1, 2, 3, 4
PE1.3 In-depth understanding of specialist bodies of knowledge		1, 2, 3, 4
PE1.4 Discernment of knowledge development and research directions		
PE1.5 Knowledge of engineering design practice		1, 2, 3, 4,
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
PE2.2 Fluent application of engineering techniques, tools and resources		3, 4
PE2.3 Application of systematic engineering synthesis and design processes		3, 4
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)		1, 2, 3, 4
PE3.3 Creative, innovative and pro-active demeanour		
PE3.4 Professional use and management of information		1, 2, 3, 4
PE3.5 Orderly management of self, and professional conduct		
PE3.6 Effective team membership and team leadership		

Additional Course Information

Delivery Modes

The teaching in this course aims at establishing a good fundamental understanding of the areas covered using: lectures, workshops and laboratories. All three components will be delivered in face-face mode.

Lectures: The course includes two 2-hour lectures each week. Lectures will provide you with a focus on the core analytical materials in the course covered according to the Lecture Schedule , together with qualitative, alternative explanations to aid your understanding. Students can contact the lecturer during, after or before the formal lecture times for consultation.

Workshop: Each week a 2-hour workshop class will allow you to practice problem-solving skills. Group learning is encouraged where possible. The solutions of the questions sheet used during the workshop will be discussed during the class.

Laboratory (compulsory):

The laboratory will consist of 3-hour sessions for each of four experiments, E1 – E4. The laboratory component of this course exposes you to physical motor drives via experiments that are designed to give you hands-on experience of electric drive concepts that are covered in lectures. It is a compulsory part of the course and must therefore be completed and passed. There are two laboratory sets for each experiment. A maximum of two students can be accommodated for each set in a face-face session. The laboratory will start in **week 7 through 10**. With the late start of the labortary, you are well advanced in the course contents to tackle the challenges of the labortary learnings. Laboratory sheets will be made available on the course page. The laboratory schedule for each enrolled group will be published by **week 7**. Because of the extensive nature of each experiment, you must prepare well in advance for your scheduled experiments, otherwise you may not be able to finish all the tasks during the 3-hour session.

Students are required to read the '*School Safety Manual for Laboratory*' and '*Laboratory Safety Instructions*' for this course. Students may require to submit the signed *Laboratory Safety Declaration* form to the lab supervisor before they start the first laboratory experiment.

Laboratory demonstrators will familiarise you with the equipment for the scheduled experiment and will help you perform procedures included in the lab sheets for each experiment during each lab session. Each experiment will support the formal lecture materials and provide you with the measurement and analytical skills required for an electric drive system. At the end of each lab session, the lab demonstrator will assess your labbook*, which should record all relevant experimental data, graphs, CRO recordings and your findings from the experiment.

The demonstrators will also ask each student questions at the end of each lab session in order to ascertain students' in-depth understanding of the experiment performed. Students are encouraged to perform accompanying simulation studies on PSIM/Matlab-Simulink platforms, culminating in the analysis of drive systems performance using such platforms. You may be asked to submit a detailed lab report for one of the experiment, which will require analysis of both the experimental simulation data.

Laboratory experiments: (week 7 to 10)

The four laboratory experiments are listed below. A Lab Schedule published by week 7 in the course webpage will inform you about which experiment you will perform in each week.

Experiment E1. Speed control of a DC motor with an inner current loop.

Experiment E2. Induction motor drive with slip-power recovery.

Experiment E3. V/f and rotor flux oriented (vector controlled) induction motor drive

Experiment E4. V/f and rotor flux oriented (vector controlled) synchronous motor drive

Laboratory Exemption

There is no laboratory exemption for this course. Regardless of whether equivalent labs have been completed in previous (or equivalent) courses, all students enrolled in this course must complete all four labs. If, for valid reasons you are unable to attend a lab session, you will need to apply for special consideration. If special consideration is granted, you will need to discuss with the laboratory demonstrator/lecturer for a catch-up lab during another lab session.

*Lab books are available in stationary stores. These books consist of plain/ruled pages and mm-graph papers.

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Laboratory Assessment Format: Individual	15%	Start Date: At each lab session. Due Date: At finish of each lab session.
Mid-term Test Assessment Format: Individual	20%	Start Date: 26/03/2024 04:00 PM Due Date: 26/02/2024 06:00 PM
Assignment Assessment Format: Individual Short Extension: Yes (3 days)	15%	Start Date: Not Applicable Due Date: Week 11: 05 August - 11 August
Final Examination Assessment Format: Individual	50%	Start Date: Not Applicable Due Date: Not Applicable

Assessment Details
Laboratory

Assessment Overview

The laboratory component of this course exposes students to physical motor drives via experiments that are designed to give them hands-on experience on various concepts that are covered in lectures. It is a compulsory part of the course and must therefore be completed and passed. Students choose a laboratory time when they enrol, and will do experiments in pairs.

The lab demonstrator will mark the lab according to the student's performance in the laboratory. Laboratory Assessment marks will be awarded according to the student's preparation, punctuality, involvement, presentation of the results obtained, how much of the lab they were able to complete, their understanding of the experiments conducted during the lab, the quality of the records entered during the lab work and their
understanding of the topic covered by the lab.

Course Learning Outcomes

- CLO1 : Explain fundamental elements of drive systems and their interactions
- CLO2 : Analyse steady-state and dynamic performance characteristics of DC, Synchronous and Induction motor drives supplied from appropriate converters

Detailed Assessment Description

Assement of the lab components is of summative type and contributes 15% (12% from the 4 lab session assessment + 3 % from a lab report).

Assessment during the lab sessions: (12%)

You will conduct four experiments E1 - E4 as per a schedule released by week 7. During each session, the laboratory demonstrators will familiarise you with the equipment for the scheduled experiment and will help you perform procedures included in the lab sheets for each experiment.

You are required to maintain a neat lab book (or logbook) for recording your laboratory experimental data and observations. A lab book is an A4 size notebook containing a mix of plain pages and graph sheets. You should purchase your own lab book. Each student must submit the lab book individually to the lab demonstrator at the end of each lab session for marking.You are required to write the aim of the experiment and draw the circuit diagram, if any, in your laboratory lab book. This will be verified by your demonstrators during each lab session.

Laboratory Assessment marks will be awarded according to your preparation, punctuality,

involvement, presentation of the results obtained, how much of the lab you were able to complete, your understanding of the experiments conducted during the lab, the quality of the records entered during your lab work (according to the guidelines given in the lab sheets), and your understanding of the topic covered by the lab.

The demonstrators will ask each student questions at the end of each lab session in order to ascertain students' in-depth understanding of the experiment performed.

Lab report: (3%)

Students are encouraged to conduct simulation studies using PSIM/Matlab-Simulink platforms in conjunction with the laboratory sessions. These simulations can be done at home at your convenience. Completing the simulation study will enhance your understanding of the lab components. Ideally, these simulations should be finished before attending the lab as part of pre-lab preparation. You will need to submit a detailed lab report for one of the experiments, which will include an analysis of both the experimental and simulation data from that specific lab. Therefore, it is beneficial to be able to compare simulation data with the experimental ones during the lab sessions (rather than waiting till when the report is due). The report is due in week 11, and a list will be provided by week 10 to inform you of the assigned lab for your report.

Assessment Length

3 hours

Assessment information

Laboratory of this course starts from week 4 for even week and week 5 for odd week groups. No laboratory class in week 1-3. Due to public holiday on Week 7, Monday, the lab group M9B will have a catch up lab in Week 11.

Assessment marks will be awarded according to students' participation, preparation (correct completion of a set of exercises or readiness for the lab in terms of pre-reading), how much of the lab were completed, understanding of the experiments and the topic covered by the lab.

Students are required to maintain a lab book to record their observations. A lab book is an A4 size notebook containing a mix of plain pages and graph sheets. Students must purchase their own lab book from any store. It is essential for the students to complete the laboratory preparation before coming to the lab. The studne may need to write the aim of the experiment and draw the diagram if required by the experiment in hand. This will be verified and signed by the lab demonstrators i. After completing each experiment, students work will be assessed by

the demonstrator and a mark will be awarded.

Assignment submission Turnitin type

Not Applicable

Mid-term Test

Assessment Overview

The mid-term test will be a closed-book test held in the middle of the term. This test may contain questions requiring some numerical and analytical work and derivations covered in the course materials. Marks will be assigned according to how completely and correctly the problems have been addressed and the understanding of the course materials demonstrated by students.

Course Learning Outcomes

- CLO1 : Explain fundamental elements of drive systems and their interactions
- CLO2 : Analyse steady-state and dynamic performance characteristics of DC, Synchronous and Induction motor drives supplied from appropriate converters
- CLO3 : Develop skills in selecting and designing important elements (e.g., appropriate motor type, controller, converter) of a drive system.

Detailed Assessment Description

Due date: 19/06/2024 Monday 04:00 PM

The mid-session test will be of 1 to 2-hour duration. It will give an indication of your general understanding of the analytical components of the course material covered during the first 4 weeks. Questions may be drawn from any course material up to the end of week 4. It may contain questions requiring some numerical and analytical work and derivations.

The closed book test will account for 15% of the grade, while a series of short take-home assignments/quizzes released throughout the term will contribute an additional 5%. Therefore, the total contribution to the final grade is 20%.

Assessment Length

1-2 hours

Submission notes

Closed Book exam

Assignment submission Turnitin type

Not Applicable

Assignment

Assessment Overview

The assignment will allow some self-directed study leading to further operational aspects of a real-world drive system. The assignment problems attempt to provide an authentic assessment experience to the student as they may require modelling the steady-state and dynamic responses of a real-world example using a simulation platform. Marks will be allocated according to how completely and correctly the problems have been addressed and the understanding of the course materials demonstrated by an accompanying report.

Course Learning Outcomes

- CLO1 : Explain fundamental elements of drive systems and their interactions
- CLO2 : Analyse steady-state and dynamic performance characteristics of DC, Synchronous and Induction motor drives supplied from appropriate converters
- CLO3 : Develop skills in selecting and designing important elements (e.g., appropriate motor type, controller, converter) of a drive system.
- CLO4 : Design hierarchical torque, speed and position controllers for converter driven motor drive systems.

Detailed Assessment Description

Due date: 05/08/2024 11:59 PM

Submission notes: Online submission (pdf file preferable)

Each student will be required to submit a report/assignment topic on a given project. The report/ assignment will allow some self-directed study leading to some further operational aspects of a real-world drive system. The project may require a modelling the steady-state and dynamic responses of the real-world example using a simulation platform (Matlab-Simulink). Marks will be allocated according to how completely and correctly the problems have been addressed and the understanding of the course material demonstrated by the report. The assignment must be submitted online (details will be provided closer to the date).

Submission notes

Online submission (pdf file preferable)

Assignment submission Turnitin type

Not Applicable

Final Examination

Assessment Overview

The exam in this course is a standard closed-book 2-hour written examination, comprising several questions. The examination tests analytical, critical thinking, and general understanding of the course materials in a controlled fashion. Questions may be drawn from any aspect of the course (including laboratory) unless specifically indicated otherwise by the lecturer. Marks will be assigned according to the correctness of the responses.

Course Learning Outcomes

- CLO1 : Explain fundamental elements of drive systems and their interactions
- CLO2 : Analyse steady-state and dynamic performance characteristics of DC, Synchronous and Induction motor drives supplied from appropriate converters
- CLO3 : Develop skills in selecting and designing important elements (e.g., appropriate motor type, controller, converter) of a drive system.
- CLO4 : Design hierarchical torque, speed and position controllers for converter driven motor drive systems.

Detailed Assessment Description

The final exam in this course will consist of a 2-hour written examination in the closed book form .

Assignment submission Turnitin type

Not Applicable

General Assessment Information

Grading Basis

Standard

Requirements to pass course

Overall 50% from combined assessments.

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 0 : 20 May - 26 May	Reading	Review the fundaments of DC motor, Induction Motor and Synchronous Motor from your previous course (e.g. ELEC3105). You may also benefit by reviewing basics of transfer function, PI controller, Bode plots from your previous Control Engineering course. Reviewing of fundamentals from Power Electronics (ELEC4614) could also be useful.
Week 1 : 27 May - 2 June	Lecture	Section 1 : Introduction and basic concepts
	Workshop	Workshop 1
Week 2 : 3 June - 9 June	Lecture	Section 1 : Introduction and basic concepts Section 2: Brushed DC Motor Drive
	Workshop	Worksop 2
Week 3 : 10 June - 16 June	Lecture	Section 2: Brushed DC Motor Drive
	Workshop	Workshop 3
Week 4 : 17 June - 23 June	Lecture	Section 2: Brushed DC Motor Drive
	Workshop	Workshop 4
	Assessment	Mid-term test
Week 5 : 24 June - 30 June	Lecture	Section 3. Brushless DC drives Section 4. Synchronous motor drives
	Workshop	Workshop 5
Week 6 : 1 July - 7 July	Reading	Flexibility Week - Review and preparation for laboratory
Week 7 : 8 July - 14 July	Lecture	Section 5. Induction motor drives
	Laboratory	Laboratory starts - E1, E2 , E3, E4.
	Workshop	Workshop 6
Week 8 : 15 July - 21 July	Lecture	Section 6. Dynamic Analysis of DC and AC machines and control
	Workshop	Workshop 6
	Laboratory	Lab E1, E2, E3, E4
Week 9 : 22 July - 28 July	Lecture	Section 6. Dynamic Analysis of DC and AC machines and control week
	Workshop	Workshop 7
	Laboratory	Lab E1, E2, E3, E4
Week 10 : 29 July - 4 August	Lecture	Section 7. Controller Design for Electric Drives Review Lecture Simulink - Tutorial for assignment help
	Workshop	Workshop 8
	Laboratory	Lab E1, E2, E3, E4
Week 11 : 5 August - 11 August	Assessment	Assignment Due Lab report Due

Attendance Requirements

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

General Schedule Information

Course Resources

Prescribed Resources

Electric Drive Systems – comprehensive lecture notes from previous lecturer Prof. F. Rahman. PDF file will be made available on the course page.

Reference books:

1. Control of Electric Machine Drive Systems - Seung-Ki Sul, IEEE Press and John Wiley, 2011.
2. Electric Drives by Ion Boldea and S. A. Nasar, CRC Press, 3rd edition, 2017.

On-line resources

All course documents, presentation slides, laboratory support material, etc., will be available on Moodle course page. Lecture recordings will be available from ECHO360.

Past exam papers:

Some sample papers will be availble.

Recommended Resources

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 convener or via the myExpereince Process. 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.

The following changes are being undertaken to improve the course based on the previous students' feedback on the course:

Contens are streamlined to fit them seemlessly in 9-week schedule.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Rukmi Dutta		Room EE406	61293857884	After and before lectures/workshops	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 polices. 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 Plagarism

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