UNSW Course Outline

CEIC3001 Advanced Thermodynamics and Separation - 2024

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General Course Information

Course Code : CEIC3001
Year : 2024
Term : Term 3
Teaching Period : T3
Is a multi-term course? : No
Faculty : Faculty of Engineering
Academic Unit : School of Chemical Engineering
Delivery Mode : In Person
Delivery Format : Standard
Delivery Location : Kensington
Campus : Sydney
Study Level : Undergraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

A key competency of chemical engineers and chemical product engineers is to apply

fundamental thermodynamic principles to the design of unit operations for various separation processes. While the type of unit operation may vary significantly from multi-component distillation to liquid-liquid extraction, the fundamental thermodynamic principles remain and can be applied to a range of separation processes.

In this course, you will learn to apply concepts in thermodynamics and fundamental knowledge of transport phenomena to develop models for industrial separation operations. This will be studied in conjunction with thermodynamics of phase equilibria for multi-component systems. The modelling will include graphical, shortcut, and rigorous models for stagewise operations. Separation operations examined include liquid-liquid extraction, binary and multicomponent distillation, azeotropic, extractive and reactive distillation; solid-liquid extraction and absorption.

In addition to the technical understanding of these processes, you will learn how to synthesise separation sequences to improve process efficiency. This is foundational to the role of the chemical engineer, who must also consider the commercial aspects of process operations.

Course Aims

The aim of this course is to develop students' understanding of phase equilibria in binary and ternary systems and to apply this knowledge to the design of separation processes. Emphasis is placed on equilibrium-stage separation processes involving vapour and liquid phases. Thermodynamic models for dealing with non-ideality in vapour/liquid phases are introduced. Separations involving a solid phase are introduced via a topic on leaching and washing.

This course is foundational to the design and operation of process plants, and the skills learned throughout the course will be applicable in courses such as process plant design, equipment design, and the final year design project. Additionally, in taking this course, students should gain the conceptual and mathematics skills to analyse other technologies that are not taught explicitly in the course.

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Evaluate thermodynamic models for phase equilibria to determine their accuracy and applicability in various separation contexts.
CLO2 : Employ appropriate thermodynamic properties and models to analyse complicated separation challenges.
CLO3 : Analyse separation technologies and formulate criteria to identify the most effective solutions for advanced separation problems.
CLO4 : Design stagewise separation processes by choosing suitable methods, assumptions, and approximations for complicated engineering scenarios

Course Learning Outcomes	Assessment Item
CLO1 : Evaluate thermodynamic models for phase equilibria to determine their accuracy and applicability in various separation contexts.	• Quizzes • Design Report • Final Exam
CLO2 : Employ appropriate thermodynamic properties and models to analyse complicated separation challenges.	• Quizzes • Design Report • Final Exam
CLO3 : Analyse separation technologies and formulate criteria to identify the most effective solutions for advanced separation problems.	• Design Report • Final Exam
CLO4 : Design stagewise separation processes by choosing suitable methods, assumptions, and approximations for complicated engineering scenarios	• Quizzes • Design Report • Final Exam

Learning and Teaching Technologies

Moodle - Learning Management System | Microsoft Teams

Other Professional Outcomes

Engineers Australia, Professional Engineer Stage 1 Competencies

This course contributes to your development of the following EA Professional Engineer competencies:

- PE1.3 In-depth understanding of specialist bodies of knowledge within the engineering discipline
- PE2.2 Fluent application of engineering techniques, tools and resources
- PE3.4 Professional use and management of information

https://www.unsw.edu.au/engineering/student-life/student-resources/program-design

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Quizzes Assessment Format: Individual Short Extension: Yes (2 days)	25%	Due Date: Week 2, Week 5, Week 7, Week 8
Design Report Assessment Format: Group Short Extension: Yes (2 days)	50%	Due Date: Task #1 due Week 5, Task #2 due Week 8, Task #3 due Week 10
Final Exam Assessment Format: Individual	25%	Due Date: Exam Period

Assessment Details

Quizzes

Assessment Overview

Students will complete a series of quizzes to receive regular feedback on their understanding of the course content. There are formative quizzes (worth 2-4%) based on the preceding weeks' content, and one summative quiz (worth 15%) to assess students' competency in the course and provide feedback midway through the term.

Course Learning Outcomes

- CLO1 : Evaluate thermodynamic models for phase equilibria to determine their accuracy and applicability in various separation contexts.
- CLO2 : Employ appropriate thermodynamic properties and models to analyse complicated separation challenges.
- CLO4 : Design stagewise separation processes by choosing suitable methods, assumptions, and approximations for complicated engineering scenarios

Detailed Assessment Description

Quiz 1 - Online Moodle quiz - 4% - Week 2: Check-in formative quiz includes topics on pre-assumed knowledge and weeks 1-2 [CLO1]

Quiz 2 - Online Moodle mid-term quiz - 15% - Week 5: Summative assessment of topics covered in weeks 2-4. 90 minutes duration. [CLO1]

Quiz 3 - Online Moodle quiz - 3% - Week 7: Prompt quizzes of topics in weeks 7 (CLO3, CLO4].

Quiz 4 - Online Moodle quiz - 3% - Week 8: Prompt quizzes of topics in weeks 8 (CLO3, CLO4].

Assignment submission Turnitin type

Not Applicable

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.

Design Report

Assessment Overview

This is a group project involving research into a separation problem, various property models, analysis, evaluation, and selection of a separation technology. Students will use both lecture concepts and outside reading. The project is designed to encourage your learning and assess your knowledge and ability in all course learning outcomes.

The assessment task follows a scaffolded approach to ensure an in-depth understanding. It contains both individual and group components, with the group components moderated according to student contributions. The exact format of this task will be specified in the assignment guide, but may contain a combination of team evaluations, individual submissions, reports and presentations.

Course Learning Outcomes

- CLO1 : Evaluate thermodynamic models for phase equilibria to determine their accuracy and applicability in various separation contexts.
- CLO2 : Employ appropriate thermodynamic properties and models to analyse complicated

separation challenges.
- CLO3 : Analyse separation technologies and formulate criteria to identify the most effective solutions for advanced separation problems.
- CLO4 : Design stagewise separation processes by choosing suitable methods, assumptions, and approximations for complicated engineering scenarios

Detailed Assessment Description

Design Report - Scaffolding approach assessment task to ensure students' in-depth understanding.

Task #1: Analysis Report Task #1 - Separation Analysis Report: Select a separation process and analyze the thermodynamics and equilibria using journal papers published in the last 12 months. This report is worth 20% of your grade. Individual group marks may be adjusted based on team evaluation results. [LO1, LO3] **Due week 5**

Task #2: Separation design presentation – preliminary update of the design report. Presentation style format (PowerPoint). [LO2, LO4]. Low-stakes formative assessment to provide feedback to students for the final report (individual 5% and group 5% component). **Due week 8**

Task #3 Final Design Report. [LO1, LO2, LO3, LO4]. Select a separation (from the prescribed list), select a (fluid) separation process, and evaluate design considerations. Develop design guidelines for your selected separation process. (group). Reflection on Design Task 2, Individual separation design report, Perform example selected analysis and design calculations. (individual 10% and group 10%) **Due week 10**

Assignment submission Turnitin type

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

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.

Final Exam

Assessment Overview

Summative assessment of topics covered in weeks 1–10. This course integrates knowledge from the rest of second year and competence in this material must be assured before students move onto more applied learning in third year.

Student responses will be assessed based on technical accuracy of calculations, speed of calculation and clarity of presentation and being able to exercise good engineering judgement.

Course Learning Outcomes

- CLO1 : Evaluate thermodynamic models for phase equilibria to determine their accuracy and applicability in various separation contexts.
- CLO2 : Employ appropriate thermodynamic properties and models to analyse complicated separation challenges.
- CLO3 : Analyse separation technologies and formulate criteria to identify the most effective solutions for advanced separation problems.
- CLO4 : Design stagewise separation processes by choosing suitable methods, assumptions, and approximations for complicated engineering scenarios

Detailed Assessment Description

Summative assessment of topics covered in weeks 1-10. Formal exam because it has high reliability and precision. Assessed based on technical accuracy of calculations, speed of calculation, clarity of presentation and being able to exercise good engineering judgement. 120 minutes. [CLO2, CLO4]

Assignment submission Turnitin type

Not Applicable

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.

General Assessment Information

Grading Basis

Standard

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 9 September - 15 September	Lecture	Course Introduction, Recap on themodynamics, Introduction to assignment CLO - 1,2,3,4
	Workshop	Assignment tutorial – Getting started workshop
Week 2 : 16 September - 22 September	Lecture	Introduction to phase equilibria CLO - 1
	Workshop	Recall thermodynamics principles, Introduction to phase equilibria
Week 3 : 23 September - 29 September	Lecture	Simple models for vapour-liquid equilibria (VLE), Introduction to non-ideality CLO -1,3,4
	Workshop	Simple models for VLE
Week 4 : 30 September - 6 October	Lecture	Non-ideality in the gas and liquid phase, Ideal Solutions CLO -1,3,4
	Workshop	Non-ideality in gas & liquid phase
Week 5 : 7 October - 13 October	Other	Public holiday
	Workshop	Mid-term Quiz
Week 6 : 14 October - 20 October	Other	Flexiblilty week (dedicated to course consultation)
Week 7 : 21 October - 27 October	Lecture	Equipment for Vapour-liquid separations, Absorption and Stripping CLO - 1,2,3,4
	Workshop	Absorption and stripping
Week 8 : 28 October - 3 November	Lecture	Graphical McCabe-Thiele, Binary distillation CLO - 1,2,3,4
	Workshop	Preliminary Report assessment (presentation)
Week 9 : 4 November - 10 November	Lecture	Liquid-liquid extraction, Ternary diagrams CLO - 1,2,3,4
	Workshop	Graphical McCabe-Thiele, Binary Distillation
Week 10 : 11 November - 17 November	Lecture	Final design workshop CLO - 1,2,3,4
	Workshop	Liquid-liquid extraction, Ternary diagrams

Attendance Requirements

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

Course Resources

Prescribed Resources

Online resources

Videos, lecture slides and suggested readings, plus links to other online resources will be

provided on the course Moodle page. These will be progressively released as the term progresses.

Recommended text

UNSW Library Electronic Resources

Prescribed textbook (OPTIONAL):

Separation Process Principles (3rd or 4th edition)

J.D. Seader, E.J. Henley and D.K. Roper John Wiley & Sons

Recommended textbook for additional reading on phase equilibria topics (several copies are available in the library):

Introduction to Chemical Engineering Thermodynamics (8th edition) J.M. Smith, H.C. Van Ness and M.M. Abbott McGraw-Hill

Recommended textbook for additional reading on separation topics (several copies are available in the library):

Chemical Engineering Design - Principles, Practice and Economics of Plant and Process Design (2nd Edition). Towler, Gavin & Sinnott, Ray K. Elsevier.

Students seeking resources can also obtain assistance from the UNSW Library. One starting point for assistance is:

https://www.library.unsw.edu.au/study/services-for-students

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Firoozeh Babaye khorasani		Hilmer 216		Contact via email	No	Yes
Lecturer	Sarah Grundy		SEB 433		Contact via email	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 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

Course Workload

Course workload is calculated using the Units-Of-Credit (UOC). The normal workload expectation for one UOC is approximately 25 hours per term. This includes class contact hours, private study, other learning activities, preparation and time spent on all assessable work.

Most coursework courses at UNSW are 6 UOC and involve an estimated 150 hours to complete, for both regular and intensive terms. Each course includes a prescribed number of hours per week (h/w) of scheduled face-to-face and/or online contact. Any additional time beyond the prescribed contact hours should be spent in making sure that you understand the lecture material, completing the set assignments, further reading, and revising for any examinations. Most 6 UoC courses will involve approximately 10-12 hours per week of work on your part. If you're not sure what to do in these hours of independent study, the resources on the UNSW Academic Skills pages offer some suggestions including: making summaries of lectures, read/ summarise sections from the textbook, attempt workshop problems, reattempting workshop problems with some hints from the solutions, looking for additional problems in the textbook.

Full-time enrolment at university means that it is a *full-time* occupation for you and so you would typically need to devote 35 hours per week to your studies to suceed. Full-time enrolment at university is definitely incompatible with full-time employment. Part-time/casual employment can certainly fit into your study schedule but you will have to carefully balance your study obligations with that work and decide how much time for leisure, family, and sleep you want left after fullfilling your commitments to study and work. Everyone only gets 168 hours per week; overloading yourself with both study commitments and work commitments leads to poor outcomes and dissatisfaction with both, overtiredness, mental health issues, and general poor quality of life.

On-campus Class Attendance

Most classes at UNSW are "In Person" and run in a face-to-face mode only. Attendance and

participation in the classes is expected. As an evidence-driven engineer or scientist, you'll be interested to know that education research has shown students learn more effectively when they come to class, and less effectively from lecture catch-up recordings. If you have to miss a class due to illness, for example, we expect you to catch up in your time, and within the coming couple of days.

For most courses that are running in an "in person" mode:

- Lectures are normally recorded to provide an opportunity to review material after the lecture; lecture recordings are not a substitute for attending and engaging with the live class.
- Workshops/tutorials are not normally recorded as the activities that are run within those sessions normally cannot be captured by a recording. These activities may also include assessable activities in some or all weeks of the term.
- Laboratories are not recorded and require in-person attendance. Missing laboratory sessions may require you to do a make-up session later in the term; if you miss too many laboratory sessions, it may be necessary to seek a Permitted Withdrawal from the course and reattempt it next year, or end up with an Unsatisfactory Fail for the course.
- Assessments will often require in-person attendance in a timetabled class or a scheduled examination.

Submission of Assessment Tasks

In the School of Chemical Engineering, all written work will be submitted for assessment via Moodle unless otherwise specified. Attaching cover sheets to uploaded work is *not* required unless specifically requested for an individual assessment task; when you submit work through Moodle for assessment you are agreeing to uphold the Student Code.

Some assessments will require you to complete the work online and it may be difficult for the course coordinator to intervene in the system after the due date. You should ensure that you are familiar with assessment systems well before the due date. If you do this, you will have time to get assistance before the assessment closes.

All submissions are expected to be neat and clearly set out. Your results are the pinnacle of all your hard work and should be treated with respect. Presenting results clearly gives the marker the best chance of understanding your method; even if the numerical results are incorrect. Please make it easy for the markers who are looking at your work to see your achievement and give you due credit.

Marking guidelines for assignment submissions will be provided at the same time as assignment details to assist with meeting assessable requirements. Submissions will be marked according

to the marking guidelines provided.

Academic Integrity

Academic integrity is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits: honesty, trust, fairness, respect, responsibility and courage (International Center for Academic Integrity, 'The Fundamental Values of Academic Integrity', T. Fishman (ed), Clemson University, 2013). At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.

Further information about academic integrity and plagiarism can be located at:

- The Current Students site
- The ELISE training site

The Conduct and Integrity Unit provides further resources to assist you to understand your conduct obligations as a student: https://student.unsw.edu.au/conduct.

To help describe what we are looking for, here are some things that we consider to be quite acceptable (even desirable!) actions for many assessments, and some that we consider to be unacceptable in most circumstances. Please check with the instructions for your assessments and your course coordinator if you're unsure. As a rule of thumb, if you don't think you could look the lecturer in the eye and say "this is my own work", then it's not acceptable.

Acceptable actions

 reading/searching through material we have given you, including lecture slides, course notes, sample problems, workshop problem solutions

 reading/searching lecture transcripts

 reading/searching resources that we have pointed you to as part of this course, including textbooks, journal articles, websites

 reading/searching through your own notes for this course

 all of the above, for any previous courses

 using spell checkers, grammar checkers etc to improve the quality of your writing

 studying course material with other students

Unacceptable actions

 asking for help completing an assessment from other students, friends, family

 asking for help on Q&A or homework help websites

 searching for answers to the specific assessment questions online or in shared documents

 copying material from any source into your answers

 using generative AI tools to complete or substantially complete an assessment for you

 paying someone else to do the assessment for you

Referencing is a way of acknowledging the sources of information that you use to research your assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism. Further information about referencing styles can be located at https://student.unsw.edu.au/referencing.

For assessments in the School of Chemical Engineering, we recommend the use of referencing software such as Mendeley or EndNote for managing references and citations. Unless required otherwise specified (i.e. in the assignment instructions) students in the School of Chemical Engineering should use either the APA 7th edition, or the American Chemical Society (ACS) referencing style as canonical author-date and numbered styles respectively.

Artificial intelligence tools such as ChatGPT, CodePilot, and built-in tools within Word are modern tools that are useful in some circumstances. In your degree at UNSW, we're teaching you skills that are needed for your professional life, which will include how to use AI tools responsibly plus lots of things that AI tools cannot do for you. AI tools already are (or will soon be) part of professional practice for all of us. However, if we were only teaching you things that AI could do, your degree would be worthless, and you wouldn't have a job in 5 years.

Whether the use of AI tools in an assessment is appropriate will depend on the goals of that assessment. As ever, you should discuss this with your lecturers – there will certainly be assessments where the use of AI tools is encouraged, as well as others where it would interfere with your learning and place you at a disadvantage later. Our goal is to help you learn how to ethically and professionally use the tools available to you. To learn more about the use of AI, see

this discussion we have written where we analyse the strengths and weaknesses of generative AI tools and discuss when it is professionally and ethically appropriate to use them.

While AI may might provide useful tools to help with some assessments, UNSW's policy is quite clear that taking the output of generative AI and submitting it as your own work will never be appropriate, just as paying someone else to complete an assessment for you is serious misconduct.

Asking Questions

Asking questions is an important part of learning. Learning to ask good questions and building the confidence to do so in front of others is an important professional skill that you need to develop. The best place to ask questions is during the scheduled classes for this course, with the obvious exception being questions that are private in nature such as special consideration or equitable learning plans. Between classes, you might also think of questions — some of those you might save up for the next class (write them down!), and some of them you might ask in a Q&A channel on Teams or a Q&A forum on Moodle. Please understand that staff won't be able to answer questions on Teams/Moodle immediately but will endeavour to do so during their regular working hours (i.e. probably not at midnight!) and when they are next working on this particular course (i.e. it might be a day or two). Please respect that staff are juggling multiple work responsibilities (teaching more than one course, supervising research students, doing experiments, writing grants, …) and also need to have balance between work and the rest of their life.

School Contact Information

For assistance with enrolment, class registration, progression checks and other administrative matters, please see the Nucleus: Student Hub. They are located inside the Library – first right as you enter the main library entrance. You can also contact them via http://unsw.to/webforms or reserve a place in the face-to-face queue using the UniVerse app.

For course administration matters, please contact the Course Coordinator.

Questions about the this course should normally be asked during the scheduled class so that everyone can benefit from the answer and discussion.