UNSW Course Outline

CEIC2007 Chemical Engineering Lab A - 2024

Published on the 25 Aug 2024

General Course Information

Course Code : CEIC2007
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

Chemical engineering is a profession that applies theory and skills to the design, development, and operation of unit operations in complex systems, like process plants. It is critical that chemical engineers can characterise and explain the behaviour of these systems under real

conditions. In this course, you will continue that journey by conducting a series of experiments on various types of equipment – from pumps, heat exchangers, reactors, to membrane process.

Working in very small groups, you will consolidate your understanding of basic chemical engineering principles and develop your skills in planning and conducting experiments and also in data acquisition, presentation and analysis. Through accompanying cycles of communicating findings and receiving frequent feedback, you will improve your writing, presentation and critical analytical skills.

You will leave this course with a deeper understanding of unit operations and greater competence in experimental and professional practice.

Course Aims

The course aims to reinforce students' understanding of core chemical engineering principles, as well as building their capabilities in chemical engineering practice. In particular, the course will improve students' ability to prepare, organise and carry out experiments, analyse data, communicate the findings and meaning of their results, and work in small teams. The development of practical laboratory and professional skills, complements the strengthening of chemical engineering knowledge through the practical experience of a range of unit operations.

Relationship to Other Courses

A key part of the professional practice of chemical engineering is your ability to investigate problems. Sometimes these investigations occur on the desktop (e.g. researching design options, simulating processes or developing techno-economic models). Other investigations involve the collection and analysis of data from natural phenomena, equipment or product testing, or process operations.

Experimental practice and inquiry-based learning can be thought of as a spectrum from highly constrained confirmation-level inquiry (essentially a demonstration) through to the largely unconstrained open-level inquiry. The change across this spectrum is the degree to which you design the inquiry.

In CEIC2007, you will be conducting experiments (mostly designed by the lecturers) and analysing your results to address the aims/objectives of the project. In this way, CEIC2007 builds on the experimental and data analysis skills you developed in your first-year science courses. You will be asked to complete 4 experiments in series "A" (i.e. quite simple, with a fair amount of directions given), and 3 experiments in series "B" (with more to be completed in the lab, more to

be analysed and discussed in longer reports, and more opportunities for you to decide what to do). The skills in experimental design and practice you develop in this course will be employed and extended in CEIC3007 and in your final year thesis project.

This course also provides practical experience with the technologies studied from a theoretical and design perspective in other courses. For example, some of the experiments involve a refrigeration system which you have studied the principles of operation in CEIC2000.

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Recognise the importance of planning and collaborative work, and collegial support
CLO2 : Define and evaluate risk management strategies in the context of conducting experimental investigations of chemical engineering principles
CLO3 : Apply chemical engineering knowledge in the context of conducting experimental investigations including data acquisition
CLO4 : Prepare written laboratory reports and deliver effective oral presentations that clearly communicate experimental results, analysis and relationship to theory
CLO5 : Analyse data to identify the source and significance of experimental uncertainties and explain the ethical responsibilities that comes with acquiring, handling and reporting data
CLO6 : Apply knowledge to reduce uncertainty in conducting chemical engineering experiments

Course Learning Outcomes	Assessment Item
CLO1 : Recognise the importance of planning and collaborative work, and collegial support	• Pre-lab and post-lab Interviews • Reports and Presentation
CLO2 : Define and evaluate risk management strategies in the context of conducting experimental investigations of chemical engineering principles	• Pre-lab and post-lab Interviews • Reports and Presentation
CLO3 : Apply chemical engineering knowledge in the context of conducting experimental investigations including data acquisition	• Pre-lab and post-lab Interviews • Reports and Presentation
CLO4 : Prepare written laboratory reports and deliver effective oral presentations that clearly communicate experimental results, analysis and relationship to theory	• Pre-lab and post-lab Interviews • Reports and Presentation
CLO5 : Analyse data to identify the source and significance of experimental uncertainties and explain the ethical responsibilities that comes with acquiring, handling and reporting data	• Pre-lab and post-lab Interviews • Reports and Presentation
CLO6 : Apply knowledge to reduce uncertainty in conducting chemical engineering experiments	• Pre-lab and post-lab Interviews • Reports and Presentation

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:

- PE1.2 Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline
- PE1.4 Discernment of knowledge development and research directions within the engineering discipline
- PE2.1 Application of established engineering methods to complex engineering problem solving
- PE2.2 Fluent application of engineering techniques, tools and resources
- PE3.2 Effective oral and written communication in professional and lay domains
- PE3.6 Effective team membership and team leadership

Additional Course Information

Expectations of students

This course consists of up to 27 hr of class contact hours (9 x 3 hr). You are expected to take an additional 120 hr of non-class contact hours to complete lab preparation, readings and assessments.

Integrity and Respect:

The UNSW Student Code of Conduct (https://student.unsw.edu.au/conduct) among other things, expects you to demonstrate integrity in all your academic work and to treat all staff, students and visitors to the University with courtesy, tolerance and respect.

Time commitment:

UNSW expects you to spend approximately 150 hr to successfully complete a 6 UOC course like CEIC2007. Learning about the principles and the operation of a new rig will require your team to carefully plan, to execute laboratory work over 3-hr lab sessions in consecutive weeks. Therefore, you are expected to spend significant time (11–13 hr per week) outside of class working through

provided preparation materials, reviewing background material, preparing your experimental plan, reviewing results and writing reports.

Competence:

You are expected to enter CEIC2007 having developed competencies in all the material covered in the assumed knowledge courses, at least. In addition, this course will draw on skills and content from other second year courses. Over the course of the term, you will be developing new competencies. To illustrate the standards we expect, marking rubrics or guidelines will be provided for all assessments. The teaching staff will apply these marking guides fairly and provide you with feedback so you can continue to improve over the term and beyond.

Participation:

To complete the experimental projects, you are required to work in a team. We expect all team members to agree on how they will manage the team (e.g. making and documenting decisions), to assign the project work equitably and contribute to the delivery of project outputs to the best of their ability. In the laboratory, you are expected to make productive use of your time, conducting their experiments in a way that does not injure anyone and does not damage the equipment.

Following your experimental work, you will finish analysing your results and prepare a report and/or presentation. You are expected to contribute to online discussions (on Teams). You are expected to read all the discussion posts and announcement on moodle. You may wish to discuss challenges faced through this course, ask questions about course content, discuss solutions to problems encountered. It is expected that you will help each other, and the lecturers will contribute as required.

Attendance and punctuality:

We expect you to be punctual and attend at all experimental and ‘marking’ sessions. University commitments take precedence over regular work activities, holidays etc.

Presumed knowledge and relationships to other courses

Most relevant presumed knowledge involved:

- CEIC2000 - Material and Energy Systems
- CEIC2001 - Fluid and Particle Mechanics

- CEIC2002 - Heat and Mass Transfer

You are also assumed to have working knowledge of second year undergraduate statistics, experimental techniques and use of MS Excel. This course is used to prepare you for higher-level lab courses (CEIC3007), which involve group work (CEIC4001), or research projects (CEIC4951, CEIC4952, CEIC4953 or CEIC4007, CEIC4008).

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Pre-lab and post-lab Interviews Assessment Format: Individual	42%	Start Date: Not Applicable Due Date: See below
Reports and Presentation Assessment Format: Group	58%	Start Date: Not Applicable Due Date: See below

Assessment Details

Pre-lab and post-lab Interviews

Assessment Overview

Effective and safe use of laboratory time depends on students being sufficiently knowledgeable about the experiment theory, methods and risk controls. A satisfactory performance in the individual pre-lab interview is required before students can undertake each experiment. In particular, the demonstrator needs to assess that students understand the risks associated with the operation of the equipment. Students should prepare for the interview by completing the online preparation modules (including quizzes) and, as necessary, revising theory from other courses. Verbal feedback is provided immediately against a rubric. A similar interview will be conducted at the end of the class to provide feedback on students' performance in the lab and gauge their understanding of the results. Each interview is worth 6 marks.

Course Learning Outcomes

- CLO1 : Recognise the importance of planning and collaborative work, and collegial support
- CLO2 : Define and evaluate risk management strategies in the context of conducting experimental investigations of chemical engineering principles
- CLO3 : Apply chemical engineering knowledge in the context of conducting experimental investigations including data acquisition
- CLO4 : Prepare written laboratory reports and deliver effective oral presentations that clearly communicate experimental results, analysis and relationship to theory
- CLO5 : Analyse data to identify the source and significance of experimental uncertainties and explain the ethical responsibilities that comes with acquiring, handling and reporting data

- CLO6 : Apply knowledge to reduce uncertainty in conducting chemical engineering experiments

Assessment Length

oral (viva voce) assessment

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.

Reports and Presentation

Assessment Overview

Students will write short reports (7 marks each) for the first three (Type A) experiments. The emphasis in Type A experiments is on data analysis and presentation, with opportunity for D and HD marks for students that incorporate a discussion of the results meaning. The report will be written as teams, with peer-assessment used to moderate marks. Since, the remaining three (Type B) experiments are more advanced, a higher level of reporting is also expected. The reports for these experiments will be written as a team for a maximum mark of 10 (peer-assessment used for moderation).

Course Learning Outcomes

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Assessment Length

Refer to marking criteria on Moodle

Assignment submission Turnitin type

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

Generative AI Permission Level

Simple Editing Assistance

In completing this assessment, you are permitted to use standard editing and referencing functions in the software you use to complete your assessment. These functions are described below. You must not use any functions that generate or paraphrase passages of text or other media, whether based on your own work or not.
If your Convenor has concerns that your submission contains passages of AI-generated text or media, you may be asked to account for your work. 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.

General Assessment Information

In summary:

7 interviews x 6 marks = 42 marks

3 short reports (A#1 – A#3) x 7 marks = 21 marks

1 presentation (A#4 in week 5) = 7 marks

3 longer reports (B#1 – B#3) x 10 marks = 30 marks

To comfortably succeed this course, you are strongly encouraged to follow the following steps.

1. Before entry to the lab:

Successful completion of online pre-lab lesson (30-40 min) is required prior to each experiment. A completion certificate (Moodle screen-shot or printed document – on which your name is visible) will be asked for before you can access the rig. On completion, you will have access to the “Quick Guide” document, containing additional information about the experiment and the safe and correct operation of the rig. These lessons will not be marked but completion is

required to release course materials that you will need for each experiment.

2. Before conducting the experiments:

A pre-lab interview will be conducted to assess your level of understanding of the rig, its operation and the risk associated with it, along with your preparedness for conducting an experiment targeting the main objectives of the day. (See typical questions in the marking criteria).

3. On completion of the experiments (before leaving the lab):

A post-lab interview will be also conducted before you can leave the lab. You will have to make yourself available at least 20 min before the end of the session to answer a couple of questions from the tutor. (See typical questions in the marking criteria).

4. At home:

Write the reports or prepare your presentation in team. Short reports (and a short presentation) are required for the first 4 experiments, while long reports (and a long presentation) will be needed for the last 3 experiments. Check the detailed schedule on Moodle.

Important notes:

Reports are due for submission on Moodle **5 days after your lab visit at 9.00pm** (i.e. if your lab visit is Wednesday, your report is due the following Monday at 9.00pm).

All laboratory reports must be pre-processed through Turnitin prior to upload (see instructions on moodle). Only one of your team members has access to and responsibility to use the Turnitin tool for the team. Submissions not processed through Turnitin will not be accepted, and will be eligible for a late penalty.

All late submissions will be penalised at 20% per day, pro rata.

Grading Basis

Standard

Course Schedule

Attendance Requirements

In-person assessments during timetabled classes

This course has in person assessments during timetabled classes, including presentations and interviews.

Laboratory activities

Attendance and participation in laboratory activities are essential and mandatory components of this course.

Laboratory safety equipment

In certain classroom and laboratory situations where physical distancing cannot be maintained or the staff running the session believe that it will not be maintained, face masks will be designated by the course coordinator as **mandatory PPE** for students and staff. Students are required to bring and use their own face mask. Mask can be purchased from IGA Supermarket (Map B8, Lower Campus), campus pharmacy (Map F14, Middle Campus), the post office (Map F22, Upper Campus) and a vending machine in the foyer of the Biological Sciences Building (Map E26, Upper Campus).

Your health and the health of those in your class is critically important. You must stay at home if you have COVID-19 or have been advised to self-isolate by NSW health or government authorities.

General Schedule Information

The typical schedule is provided under "assessments", but dates and times are subject to change depending on class progress and unforeseen occurrences. Any changes will be posted on Moodle in the announcement forum. You must read all posts in the announcement forum.

Laboratory Experiments will be detailed in separated laboratory guidelines and posted on Moodle. Due to constraints of laboratory allocations, changes between laboratory slots will not be possible.

Group allocations will be posted on Moodle. Note that the laboratory experiments will be carried out in the Chemical Engineering Teaching Laboratories (Level 1, Building E8)

Course Resources

Recommended Resources

Laboratory guidelines, key reference materials and schedule will be posted on Moodle.

D.A. Skoog, D.M. West, F.J. Holler and S.R. Crouch, “Fundamentals of Analytical Chemistry”, 8th Ed, 2004, Thompson Learning-Brooks/Cole, Belmont CA, USA.

D.A. Skoog, F.J. Holler and S.R. Crouch, “Principles of Instrumental Analysis”, 6th Ed, 2007, Thompson Learning-Brooks/Cole, Belmont CA, USA.

A comprehensive list of reading materials is available for each experiment on Moodle.

Students seeking additional materials can obtain assistance from the UNSW Library. One starting point is info.library.unsw.edu.au/services/services.html

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Pierre Le Clech		531 in SEB		By email appointment	Yes	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

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.