UNSW Course Outline

FOOD8450 Advanced Food Engineering - 2024

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General Course Information

Course Code : FOOD8450
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 : Postgraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

Food engineering principles (heat and mass transfer) are the basis of food processing. In this course, you will understand and apply important aspects of food engineering in greater depth, focussing on selected unit operations such as drying, spray drying, distillation, liquid-liquid

extraction, membrane filtration and radiation. By undertaking this course, you will be well equipped with the fundamental theory to understand many common processes undertaken in the food processing industry. This includes heat and mass transfer, radiation theory, drying and dehydration, and chemical separations.

At the end of this course, you should have a greater knowledge of these advanced unit operations, and how they might interact with food and its quality. In addition, you should have improved problem-solving skills and the ability to bring analytical techniques to each operation. You should also have a greater awareness of where to find resources to help with unit operation analysis applicable to a range of food-related industries. These knowledge and skills will be valuable for careers in the food industry including food (process) engineer, food technologist, new product development, and other R&D positions.

Course Aims

In this course, students will cover the fundamentals of advanced unit operations used in the food industry, specifically spray drying, distillation, liquid-liquid extraction, membrane filtration and radiation. Students will also be trained in analytical thinking skills and will gain an essential background in food engineering for future projects which involve process design, including research projects and careers in the food processing industry.

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Apply the principles of heat and mass transfer in food processing.
CLO2 : Apply the principles of radiation heat transfer in processing.
CLO3 : Describe the spray drying process and current research.
CLO4 : Analyse and apply chemical separations in a food line.
CLO5 : Apply correct membrane processes to physical separation.

Course Learning Outcomes	Assessment Item
CLO1 : Apply the principles of heat and mass transfer in food processing.	• Quizzes • Assignment • Group project
CLO2 : Apply the principles of radiation heat transfer in processing.	• Quizzes • Assignment • Group project
CLO3 : Describe the spray drying process and current research.	• Quizzes • Assignment • Group project
CLO4 : Analyse and apply chemical separations in a food line.	• Quizzes • Assignment • Group project
CLO5 : Apply correct membrane processes to physical separation.	• Quizzes • Assignment • Group project

Learning and Teaching Technologies

Moodle - Learning Management System | Microsoft Teams | Review - Assessment/Feedback Tool

Other Professional Outcomes

At the successful completion of this course you (the student) should be able to: Understand and apply the principles of heat and mass transfer in food processing. Understand and apply the principles of radiation heat transfer in processing. Describe drying modelling and current research. Understand and apply chemical separations in a food line. Apply correct membrane processes to physical separation.

The students will also have the experience to work in group to solve a real-world technical issue

in food industry based on the course content.

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

Additional Course Information

The course is designed for students with an interest in the application of engineering principles to food processing. Before delving into dehydration and spray drying, a review of heat and mass transfer is considered because both phenomena (heat and mass transfer) occur simultaneously during drying. Radiation, which explains microwave and novel thermal processing, is also covered in this course. Then, chemical separation unit operations such as distillation, liquid-liquid extraction, and membrane filtration are covered. If you have an interest in a more advanced food engineering project, working in the food industry, or simply enjoy finding out more about how food is processed, this unit is for you.

Disclaimer: This course is part of UNSW Food Science specialisations approved (2021-2026) by the Institute of Food Technologists Higher Education Review Board (IFT HERB).

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Quizzes Assessment Format: Individual	30%	Due Date: Week 4, Week 9
Assignment Assessment Format: Individual	25%	Due Date: Week 7, Week 10
Group project Assessment Format: Group	45%	Due Date: Week 2, Week 3, Week 5, Week 10

Assessment Details

Quizzes

Assessment Overview

Two paper-based quizzes intend to provide feedback on progress with the course. The quizzes will be conducted in person and must be undertaken by the due date to gain marks. The questions will assess students' knowledge of unit operations and simple problem solving.

Course Learning Outcomes

- CLO1 : Apply the principles of heat and mass transfer in food processing.
- CLO2 : Apply the principles of radiation heat transfer in processing.

- CLO3 : Describe the spray drying process and current research.
- CLO4 : Analyse and apply chemical separations in a food line.
- CLO5 : Apply correct membrane processes to physical separation.

Detailed Assessment Description

There will be 2 individual quizzes to cover different topics (15% for each quiz).

The quizzes will be held during the lecture time in Weeks 4 & 9. The exact time can be found on Moodle and will also be communicated during lectures.

The quizzes will be paper-based in the lecture room.

The duration for each quiz is 30 minutes.

Students are allowed to bring two pages of A4-sized paper with handwritten or word-edited notes. Remember that the notes must not be directly copied from lecture notes or textbooks.

You are allowed to use an UNSW approved calculator.

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.

Assignment

Assessment Overview

Students will work on individual assignments. These require students to solve problems and encourage the progressive review of material. Completing these submissions and receiving feedback will guide students in applying classroom theory.

Course Learning Outcomes

- CLO1 : Apply the principles of heat and mass transfer in food processing.
- CLO2 : Apply the principles of radiation heat transfer in processing.
- CLO3 : Describe the spray drying process and current research.

- CLO4 : Analyse and apply chemical separations in a food line.
- CLO5 : Apply correct membrane processes to physical separation.

Detailed Assessment Description

The assignment is finished individually. The assignment questions will be posted on Moodle at least one week before the deadline.

Assignment submission Turnitin type

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

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.

Group project

Assessment Overview

The project is designed to assess the course learning outcomes include a significant level of technical learning. Students will be asked to solve a given problem in food processing industry, and provide innovative solutions which need to be validated using the skills learned in this course.

Students will be randomly paired with two peers to work as a team to work on a project (three students per team). The purpose of this style of submission is to enhance learning with peer review and teamwork. If there is an odd number of students in the class, there will be one group of two or four members.

The assessments within the project will include project ideation & progress report (assessed individually), project presentation (group mark with peer review adjustment), final report (group mark with peer review adjustment).

The project tests both understanding of technology, and problem-solving skills related to the topics covered in the course.

Course Learning Outcomes

- CLO1 : Apply the principles of heat and mass transfer in food processing.

- CLO2 : Apply the principles of radiation heat transfer in processing.
- CLO3 : Describe the spray drying process and current research.
- CLO4 : Analyse and apply chemical separations in a food line.
- CLO5 : Apply correct membrane processes to physical separation.

Detailed Assessment Description

The project will be assessed via four components:

- Project ideation (5%). It includes an in-class oral presentation during the workshop (no preparation required prior to the workshop) (2%), followed by a written submission (max one page) (3%).
- Project progress report (10%). A written report is to be submitted via Moodle.
- Project final presentation (15%). The presentation will be scheduled in Week 10 during the workshop.
- Project final report (15%). A written report is to be submitted via Moodle.

Detail instructions will be provided on Moodle & during the lecture/workshop.

Group submissions will include peer review from the group members (for progress and final reports).

Final presentation will be marked by the lecturer, with an online survey to collect feedbacks from other groups.

More than three students (4-5 students) may be allocated to the same group if there are more students enrolled than expected.

Assessment Length

Please see detailed instruction via Moodle

Assessment information

The individual deadline for submission of the different sections of the project will be posted on Moodle via the submission pages.

Report marks will be moderated by team assessment of individual contributions to the submission.
Presentations will be marked individually and so each team member must speak in order to receive a mark.

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.

General Assessment Information

Submission of assessment tasks

- Assignments are due as per unit schedule and due dates in Moodle. Unless a valid medical certificate is presented, assignments submitted after the due date will receive a 5% duction in marks for every day that they are late.
- Unless otherwise specified, collaboration on assignments with other students is not permitted.

If you are unable to meet the due date for one or more of your assessment tasks, you will need to submit a special consideration request via MyUNSW. You may receive an extension on your assignment or supplementary exam as deemed appropriate.

Grading Basis

Standard

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 0 : 2 September - 8 September	Online Activity	An online survey is accessible via Moodle, and its purpose is to gather information about your educational background and your interest, if any, in pursuing a career in the food and related industry.
Week 1 : 9 September - 15 September	Blended	Lecture Introduction to food materials and properties Lecture Heat transfer in food processing (steady state and unsteady state) Workshop Project background and students grouping
Week 2 : 16 September - 22 September	Blended	Lecture Mass transfer in food systems Lecture Dehydration: review of psychometrics, basic drying processes Workshop Project ideation
	Assessment	Project ideation in-class presentation (no preparation required prior to workshop)
Week 3 : 23 September - 29 September	Blended	Lecture Fundamentals of food drying Lecture The stages of drying: prediction of drying time Workshop Project design scenerios
	Assessment	Project ideation one-page written submission via Moodle
Week 4 : 30 September - 6 October	Blended	Lecture Drying: drying technologies and applications in food processing Lecture Spray drying of food materials, Spray drying and microencapsulation Workshop Project design: processing conditions and calculations
	Assessment	Quiz 1 (15%) covering Week 1-3, in-class paper-based, during the lecture time.
Week 5 : 7 October - 13 October	Blended	Lecture Membrane separation 1 & 2 Lecture Membranes in food application Workshop Project design: processing conditions and calculations
	Assessment	Project progress report (10%)
Week 6 : 14 October - 20 October	Online Activity	Online activity designed for the postgraduate cohorts of this course. Undergraduate co-horts are welcome to join, otherwise they can use this week as equivalent to flexibility week.
Week 7 : 21 October - 27 October	Lecture	Lecture Introduction to chemical separation Lecture Distillation 1 and 2
	Assessment	Assignment 2 (12.5%), individual submission, covering Week 1-5.
Week 8 : 28 October - 3 November	Lecture	Lecture Liq-Liq Extraction 1 & 2 Lecture Sol-Liq-Liq Extraction
Week 9 : 4 November - 10 November	Blended	Lecture Radiation: Theory 1 Lecture Radiation: Application 1 Workshop Project design: processing conditions and calculations
	Assessment	Quiz 2 (15%) covering Week 7-8, in-class paper-based, during the lecture time.
Week 10 : 11 November - 17 November	Blended	Lecture Radiation: Theory 2 Lecture Radiation: Application 2 Workshop Project design final presentation
	Assessment	Project final presentation (15%), during the workshop.
	Assessment	Assignment 2 (12.5%), individual submission, covering Week 7-8.
	Assessment	Project final report (15%), due in Week 11.

Attendance Requirements

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

General Schedule Information

Most of the teaching will be done through lectures. In particular, the first and second lectures each week will be lecture presentations. For some weeks, the second lecture in the week might

be delivered via video recording, to accommodate the in-person quizzes.

There will be one workshop style of teaching and discussion each week (usually the last session of each week, as indicated in the course schedule). Students are strongly encouraged to attend the workshop in person. This will be the time for the project-based activities in which the students work in groups.

Embedded in the lectures are interactive examples, where you can practice immediately the theory that has been presented. This gives you a chance to ask questions and so ensure that you fully understand each step before we move on to the next.

More generally, all students are welcome to interrupt and ask questions at any time as we go along, and we value these questions as indications of how well you are understanding the concepts that are presented.

This course is rightly called Advanced Food Engineering. The pace will be faster, the concepts more difficult and expectations are higher. You are in a good position to cope with this more advanced material, because we are building on knowledge that you already have.

Certain lectures in each week allows interactive problem solving, where you can form groups and tackle tutorial worksheets. The time during lectures will never be adequate to complete all questions. You will be expected to look at the tutorial worksheets before lectures and complete them in your own time after the tutorial. You will need to do this to keep pace with the theory. Solutions will be put online a few days after the tutorial.

Attendance in class (face to face or online) is required, and you will need to do some work and study for yourselves outside of the formal meeting times. Pre-reading of the lecture slides and recommended book chapters (even with only partial understanding) is massively helpful. To stress that again, read the slides in advance, but you do not have to understand them. I expect you could do this in about 20 minutes per topic.

When using the online discussion forums, it is expected that students follow UNSW's Online Participation Guidelines, found at: https://student.unsw.edu.au/online-study.

Course Resources

Prescribed Resources

Textbooks: Singh and Heldman: Introduction to Food Engineering

Chen and Mujumdar: Drying Technologies in Food Processing

References: Perry and Green: Chemical Engineers Handbook, CRC Press

Fellows: Food Processing Principles

Arvanitoyannis: Irradiation of Food Commodities

Library services:http://www.library.unsw.edu.au/servicesfor/students.html

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Yong Wang		Science and Engineering Building (SEB)		via Teams channel or Moodle forum	No	Yes
Lecturer	Francisco Trujillo		Science and Engineering Building (SEB)		via Teams channel or Moodle forum	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.