**UNSW Course Outline**

# FOOD9104 Advanced Food and Health Security - 2024

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## General Course Information

**Course Code :** FOOD9104
**Year :** 2024
**Term :** Term 2
**Teaching Period :** T2
**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

The UN Sustainable Development Goals (SDGs) outline a call to action to promote global peace and prosperity, and end poverty and inequality while protecting the environment. In this course, you will directly address the UN SDGs in the context of Food and Health Security facing different

populations in the world both at the micro (household) and macro (population, country) levels. Topics will cover sustainable agricultural systems/production to meet the food availability requirements for populations; nutrition sensitive agriculture, a food system approach to address undernutrition and achieve Zero Hunger; effects of climate change on food and nutrient availability, role of food science and technology in crisis scenarios such as natural disasters, civil war, and pandemics/epidemics.

# Course Aims

This course will provide students with an appreciation of humanitarian work and analyse the various food and health issues in the world and how to address them within the UN SDG framework. It is expected that students will develop an understanding of the relevance of the UN SDGs and the cultural context in which they are applied. Students will gain skills in multi-disciplinary collaboration, effective communication, creative problem solving and reflection in the context of the SDG framework. Emphasis will be placed on ethical practice and social responsibility throughout the course.

# Course Learning Outcomes

| Course Learning Outcomes |
|---|
| CLO1 : Explain the intent of the 17 UN Sustainability Development goals (SDGs). |
| CLO2 : Illustrate how geographical disparities of Food security can be impacted by social and cultural impacts through different scenarios from literature. |
| CLO3 : Decipher case study scenarios and provide meaningful data driven solutions for societal problem solving. |
| CLO4 : Explain the impact of relationships in complex stakeholder environments using specific examples. |
| CLO5 : Conceptualise, quantify and improve global footprints based on case studies. |

| Course Learning Outcomes | Assessment Item |
|---|---|
| CLO1 : Explain the intent of the 17 UN Sustainability Development goals (SDGs). | • Group discussion and debate<br>• Reflection<br>• Seminar presentation |
| CLO2 : Illustrate how geographical disparities of Food security can be impacted by social and cultural impacts through different scenarios from literature. | • Group report<br>• Group discussion and debate<br>• Reflection |
| CLO3 : Decipher case study scenarios and provide meaningful data driven solutions for societal problem solving. | • Group report<br>• Seminar presentation |
| CLO4 : Explain the impact of relationships in complex stakeholder environments using specific examples. | • Group discussion and debate<br>• Group report<br>• Seminar presentation |
| CLO5 : Conceptualise, quantify and improve global footprints based on case studies. | • Reflection |

# Learning and Teaching Technologies

Moodle - Learning Management System | Echo 360

# Other Professional Outcomes

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

# Assessments

## Assessment Structure

| Assessment Item | Weight | Relevant Dates |
|---|---|---|
| Group discussion and debate<br>Assessment Format: Individual | 25% | Due Date: Week 4 |
| Group report<br>Assessment Format: Individual<br>Short Extension: Yes (1 day) | 30% | Due Date: 11/08/2024 11:59 PM |
| Reflection<br>Assessment Format: Individual<br>Short Extension: Yes (1 day) | 20% | Due Date: 11/08/2024 11:59 PM |
| Seminar presentation<br>Assessment Format: Group | 25% | Start Date: Not Applicable<br>Due Date: Week 9, Week 10 |

## Assessment Details

### Group discussion and debate

Assessment Overview

Student represent views for and against approaches expressed in case studies of food and nutrition issues in different countries, and present solutions to various scenarios. Marks will be based on student's presentation and their ability to be critical in their arguments, presenting a critical evaluation of approaches used to address food and health security issues.

Course Learning Outcomes

- CLO1 : Explain the intent of the 17 UN Sustainability Development goals (SDGs).
- CLO2 : Illustrate how geographical disparities of Food security can be impacted by social and cultural impacts through different scenarios from literature.
- CLO4 : Explain the impact of relationships in complex stakeholder environments using specific examples.

Assignment submission Turnitin type

Not Applicable

### Group report

Assessment Overview

Students write a group report critically analysing examples of case studies on topic relevant to the course. Marks will be awarded by the course lecturer, noting individual contributions, with written feedback provided to the students.

## Course Learning Outcomes

- CLO2 : Illustrate how geographical disparities of Food security can be impacted by social and cultural impacts through different scenarios from literature.
- CLO3 : Decipher case study scenarios and provide meaningful data driven solutions for societal problem solving.
- CLO4 : Explain the impact of relationships in complex stakeholder environments using specific examples.

## Assessment Length

15-30 pages

## Assignment submission Turnitin type

This assignment is submitted through Turnitin and students do not see Turnitin similarity reports.

# Reflection

## Assessment Overview

Students to write an essay reflecting on the challenges and opportunities for food scientists and interdisciplinary teams to work in this space of humanitarian science and technology including the personal and professional skills required. Marks will be awarded by the lecturer with written feedback provided to students.

## Course Learning Outcomes

- CLO1 : Explain the intent of the 17 UN Sustainability Development goals (SDGs).
- CLO2 : Illustrate how geographical disparities of Food security can be impacted by social and cultural impacts through different scenarios from literature.
- CLO5 : Conceptualise, quantify and improve global footprints based on case studies.

## Detailed Assessment Description

Students to write an essay reflecting on the challenges and opportunities for food scientists and interdisciplinary teams to work in this space of humanitarian science and technology including the personal and professional skills required. Students are also encouraged to comment on the course and their personal experience. Marks will be awarded by the lecturer with written feedback provided to students.

## Assessment Length

2 pages max.

## Assignment submission Turnitin type

This assignment is submitted through Turnitin and students do not see Turnitin similarity

reports.

## Seminar presentation

### Assessment Overview

Students will present an aspect of importance/relevance from the case study in their group report. The grade will be a weighted combination of marks from peer and course lecturers. Feedback on presentation style will be provided to each student in written format following their presentation.

### Course Learning Outcomes

- CLO1 : Explain the intent of the 17 UN Sustainability Development goals (SDGs).
- CLO3 : Decipher case study scenarios and provide meaningful data driven solutions for societal problem solving.
- CLO4 : Explain the impact of relationships in complex stakeholder environments using specific examples.

### Assessment Length

20 min - 35 min

### Assignment submission Turnitin type

Not Applicable

# General Assessment Information

### Grading Basis

Standard

# Course Schedule

| Teaching Week/Module | Activity Type | Content |
|---|---|---|
| Week 1 : 27 May - 2 June | Blended | Lecture / Group work |
| Week 2 : 3 June - 9 June | Blended | Lecture / Group work |
| Week 3 : 10 June - 16 June | Blended | Tue 11. Jun<br>Lecture / Group work<br>Thu 13. Jun<br>Guest speaker: Dr. Jayantha Sellahewa<br>The role of food science and nutrition in humanitarian response |
| Week 4 : 17 June - 23 June | Blended | Tu 18. Jun<br>Assessment Group Discussion and Debate<br>Thu 20. Jun<br>Assessment Group Discussion and Debate |
| Week 5 : 24 June - 30 June | Blended | Tu 25. Jun<br>Lecture / Group work<br>Thu 27. Jun<br>Guest speaker: Dr. Frances Warnock<br>Strengthening Food safety & Nutrition in the Solomon Islands and Sri Lanka |
| Week 6 : 1 July - 7 July | Other | Flexibility week |
| Week 7 : 8 July - 14 July | Blended | Tu 09. Jul<br>Prof. Jayashree Arcot<br>"Influence of environment on food consumption"<br>Thu 11. Jul<br>Prof. Jayashree Arcot<br>"Climate Change and Food Security" |
| Week 8 : 15 July - 21 July | Blended | Lecture / Group work |
| Week 9 : 22 July - 28 July | Blended | Tu 23. Jul<br>JleC/JA<br>Student seminars / Group work<br>Thu 25. Jul<br>JleC/JA<br>Student seminars / Group work |
| Week 10 : 29 July - 4 August | Blended | Tu 30. Jul<br>JleC/JA<br>Student seminars / Group work<br>Thu 1. Aug<br>JleC/JA<br>Student seminars / Group work |

# Attendance Requirements

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

# Course Resources

## Prescribed Resources

https://sdgs.un.org/goals

## Recommended Resources

https://sdgs.un.org/goals

# Staff Details

| Position | Name | Email | Location | Phone | Availability | Equitable Learning Services Contact | Primary Contact |
|---|---|---|---|---|---|---|---|
| Convenor | Johannes le Coutre | | SEB Room 437 | 02 9385 7195 | 9:00am - 5:00pm | No | Yes |
| | Jayashree Arcot | | | | | 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](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](Engineering Student Support Services) – The Nucleus - enrolment, progression checks, clash requests, course issues or program-related queries

[Engineering Industrial Training](Engineering Industrial Training) – Industrial training questions

[UNSW Study Abroad](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](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.