

FOOD4403, FOOD8403

Advanced Nutrition

Term 2, 2023



Course Overview

Staff Contact Details

Convenors

Name	Email	Availability	Location	Phone
Jayashree Arcot	j.arcot@unsw.edu.au	email and phone	416A, E10 Science and Engineering Building	9385 5360

Tutors

Name	Email	Availability	Location	Phone
Ruchira Ghosh	ruchira.ghosh@unsw.edu.au	via email/TEAMS		

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.

If circumstances outside your control impact on submitting assessments, Special Consideration may be granted, usually in the form of an extension or a supplementary assessment. Applications for Special Consideration must be submitted [online](#).

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.

Course Details

Units of Credit 6

Summary of the Course

This course consists of lecture and discussion classes that build on the basic concepts of nutrition with respect to the food supply, giving advanced treatment of the following topics. Food and nutrition policy: structure of the population; food supplies, food consumption, nutritional epidemiology; population dietary references; food programs such as food fortification, supplementary feeding schemes, nutritional rehabilitation, nutritionally modified foods, nutritional regulations and standards, nutrition education, dietary and nutrition interventions (ORT, family planning, infection control, growth monitoring); principles, practice and evaluation of applied nutrition programs; advanced assessment methods in nutrition: nutrient bioavailability studies, nitrogen balance tests, vitamin load tests, sodium and potassium excretion, creatinine excretion, fitness assessment, biochemical assessment, design and evaluation of nutritional epidemiology studies, food intake studies.

Course Aims

This course will enable students to build on the basic concepts of nutrition with respect to the food supply, giving advanced treatment of topics including food and nutrition policy and advanced assessment methods in nutrition. Students will gain the skills necessary to apply the basic concepts of nutrition to contemporary issues spanning the social and technical spheres and appreciate the importance of understanding scientific principles when addressing population wide issues related to food supply and consumption and their impact on health. To do so effectively, throughout this course, students will build on their skills in scientific analysis, communication, and comprehension by using scientific literature and referring to state-of-the-art practice and develop a plan to execute and evaluate nutrition intervention programs for a population.

Course Learning Outcomes

1. Appreciate the importance of Food Composition Databases and their development for the assessment of nutritional deficiencies.
2. Evaluate critical judgement with respect to scientific information.
3. Communicate scientific information in a specific style.

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

Teaching Strategies

The approach to learning in this course aims to provide students with a challenging learning environment that encourages critical thinking and develops expertise in the discipline. Students will build on their basic knowledge of the subject area through both independent study on particular topics and teamwork to equip them with the skills required for professional practice.

Learning activities in this course will consist of lectures, tutorials and independent study. The lectures will introduce students to concepts, techniques and evidence required in nutritional epidemiology and interventions. While the tutorials will involve group discussions and presentations addressing nutritional

issues and interventions globally. Through these activities students will learn how to interpret nutrition intervention studies through assessment of scientific literature and communicate information appropriately. Above all, independent study is encouraged both individually and in groups for the final workshop/presentation for a collective understanding of key topics in a community nutrition environment.

Additional Course Information

Time commitment

UNSW expects students to spend approximately 150 hours to successfully complete a 6 UOC course like FOOD4403/8403. We expect 60 hours to be spent participating in face-to-face classes or online classes as the case may be; 2 hours completing online quizzes, with the remaining 88 hours provided for private study, working on the assessments and preparing for the final presentation. Therefore, outside class you should be spending at least 7 hours per week working on this course.

Competence

Students are expected to enter FOOD4403/8403 having developed competencies in all the material covered in the pre-requisite courses (FOOD3220- Nutrition), at least. Little time is available to remediate any deficiencies in your knowledge of those topics. Over the course of the term, you will be developing new competencies and 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

When you attend face-to-face classes or online live class sessions, we expect you to actively participate in the activities organized. This may mean listening, taking notes, asking questions or engaging in peer discussions. It may also mean working by yourself or in groups on tutorial exercises.

To complete the major project tasks, 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.

Students are expected to contribute to online discussions through the course forum on MOODLE. You may wish to discuss challenges faced through this course, ask questions about course content, discuss tutorials and practice questions. It is expected that students will help each other, and the lecturers will contribute as required.

Attendance and punctuality

We expect students to be punctual and attend all lectures and tutorials even if delivered online. University commitments take precedence over regular work activities, holidays etc. If you miss a class, we expect you to catch up in your time, lectures will be recorded and made available through MOODLE.

Assessment

Assessment criteria and standards

All assessments will be completed online except the Final Project. No hard copy submissions are required. The student gateway provides more detail on the UNSW [grading system](#) and [assessment policy](#).

Detailed assessment criteria for each assessment including for peer assessments will be provided on MOODLE during session.

Assessment task	Weight	Due Date	Course Learning Outcomes Assessed
1. Scientific Paper Evaluation	20%	16/06/2023 01:00 PM	2, 3
2. Scenario-based Test	25%	14/07/2023 01:00 PM	1
3. Test on Lecture Material	25%	28/07/2023 11:00 AM	2
4. Final Group Project	30%	04/08/2023 01:00 PM	2, 3

Assessment 1: Scientific Paper Evaluation

Start date: 16/06/2023 10:00 AM

Due date: 16/06/2023 01:00 PM

This is based on the group activity during tutorial time to critique a scientific publication. This will be an evaluation of critical judgement with respect to scientific information.

Peer assessment (5%), Presentation (15%).

This is not a Turnitin assignment

Assessment 2: Scenario-based Test

Start date: 14/07/2023 10:00 AM

Assessment length: 60 minutes

Due date: 14/07/2023 01:00 PM

Scenario based testing on the online WHO e-learning course on Food Composition.

This is not a Turnitin assignment

Assessment 3: Test on Lecture Material

Start date: 28/07/2023 10:00 AM

Assessment length: 60 mins

Due date: 28/07/2023 11:00 AM

Test on Lecture material covered until Week 8. This will be a short-answer/Quiz on MOODLE.

This is not a Turnitin assignment

Assessment 4: Final Group Project

Start date: 01/08/2023 01:00 PM

Due date: 04/08/2023 01:00 PM

Students will be evaluated on their ability to collect appropriate literature related to a topic and make a critical assessment of the scenarios. This will be an assessment to test their abilities to evaluate different community level scenarios and suggest programs as interventions based on analysed information. This project will allow students to carefully consider the topics covered in the lectures and apply them to their projects.

Peer assessment (5%), Individual contribution (15%), Group report/presentation (10%).

This is not a Turnitin assignment

Attendance Requirements

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

Course Schedule

Lectures will be delivered face-to-face on Tuesdays (1-3pm, UNSW Business School 115) and Wednesdays (1-2pm, UNSW Business School 119).

The Tutorials will be face-to-face on Fridays (10-1pm, Webster 251).

[View class timetable](#)

Timetable

Date	Type	Content
O-Week: 22 May - 26 May		
Week 1: 29 May - 2 June	Lecture	Lecture 1: Introduction; Forming groups; Topics for group presentations Lecture 2: Nutritional assessment techniques- Introduction and Principles - Biochemical and Clinical Methods
	Tutorial	FAO/INFOODS e-learning course-Introduction; getting started
Week 2: 5 June - 9 June	Lecture	Lecture 1: Nutritional Assessment Techniques- Laboratory Assessment Methods Lecture 2: Case studies/Exercise
	Tutorial	Group project discussion- Tutor-led
Week 3: 12 June - 16 June	Lecture	Lecture 1: Nutritional Assessment techniques: Clinical Assessments: Introduction, relevance in population context. Case studies. Lecture 2: Continued from Lecture 1
	Tutorial	Group project discussion- tutor-led
	Assessment	Scientific Paper Evaluation
Week 4: 19 June - 23 June	Lecture	Lecture 1 and 2: Nitrogen Balance studies; Evaluation of protein quality of foods
	Tutorial	Assessment 1- Critical assessment of scientific papers: Group Assessment-Compulsory attendance and participation

Week 5: 26 June - 30 June	Lecture	Lecture 1 and 2: Bioavailability of foods-relevance to public nutrition policy
	Tutorial	Group Project Discussion- Tutor-led
Week 6: 3 July - 7 July	Lecture	Flexible Week- No Lecture
	Tutorial	Flexible Week- No Tutorial
Week 7: 10 July - 14 July	Lecture	Lecture 1: Food Systems and Interventions Lecture 2: Food balance sheets
	Tutorial	Scenario-based test (On-line on MOODLE) on Application of Food Composition Database Continuation of final group project discussion-independent. No formal tutorial.
	Assessment	Scenario-based Test
Week 8: 17 July - 21 July	Lecture	Lecture 1: Evidence-based science; nutritional epidemiology plus levels of evidence Lecture 2: Case study exercises based on publications
	Tutorial	Group Project Discussions-Independent
Week 9: 24 July - 28 July	Lecture	Lecture 1: Food and Nutrition Policy Lecture 2: Approaches/strategies to reduce malnutrition e.g. food fortification; nutrition education. Nutrition Rehabilitation and Interventions.
	Tutorial	Online (MOODLE) Test -on lecture material covered until Week 8. Group Project Discussion
	Assessment	Test on Lecture Material
Week 10: 31 July - 4 August	Lecture	Assessment 4-Group Project Presentations-Details will be provided on MOODLE
	Tutorial	Assessment 4- Group Project Presentations and submission of report via MOODLE.
	Assessment	Final Group Project

Resources

Prescribed Resources

Gibson, R (2005) Principles of Nutritional Assessment. 2nd edition. ISBN: 9780195171693

Kirkwood and Sterne (2003). Essential Medical Statistics, 2nd Edition. John Wiley & Sons, Ltd., Oxford, UK.

Fidanza, F. 1991. Nutritional Status Assessment. A manual for population studies. 1st Edition, Chapman and Hall.

Gibson, RS. 1993. Nutritional Assessment. A laboratory manual. Oxford University Press.

Lee, RD and Nieman, DC. 1993. Nutritional Assessment. Brown and Benchmark Publishers.

Lohman, TG, Roche, AF, Martorell, R (1988). Anthropometric standardization reference manual, Human Kinetics Books

In addition to the above, more resources such as key websites and references will be provided for each topic during the lecture.

Recommended Resources

There is no set textbook for this course.

www.fao.org

www.who.org

www.aihw.gov.au

www.nhmrc.gov.au

www.foodstandards.gov.au

<https://www.wfp.org/>

Videos, lecture slides and suggested readings, tutorial exercises, plus links to other online resources will be provided on MOODLE. These will be progressively released as the term progresses.

You can access the full text of online resources available from the UNSW library using the UNSW VPN Service (<https://www.it.unsw.edu.au/staff/vpn/#AccessingLibraryJournals>).

Several software resources tools are available online on: <https://www.myaccess.unsw.edu.au/>.

Course Evaluation and Development

Student feedback on both course and teaching will be done through MOODLE from Week 8 onwards. This is a formal University level student feedback. During the first week, when assessments and

course schedules are discussed along with expectations in the course, feedback from the previous year on the course will be shared and changes made as a result of that will also be discussed. The focus will be on how to improve student experience in the course.

Laboratory Workshop Information

There is no laboratory session for this course.

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.

Late penalties

Unless otherwise specified, submissions received after the due date and time will be penalised at a rate of 5% per day or part thereof (including weekends) and will not be accepted more than 5 days late. For some activities including Exams, Quizzes, Peer Feedback, and Team Evaluation surveys, extensions and late submissions are not possible.

Special consideration

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 submitting an assessment or sitting an exam.

UNSW has a [Fit to Sit / Submit rule](#), which means that if you attempt an exam or submit a piece of assessment, 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](#).

Please note that for **all** special consideration requests (including COVID-19-related requests), students will need documentary evidence to support absences from any classes or assessments.

Academic Honesty and Plagiarism

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	Unacceptable actions
<ul style="list-style-type: none"> ✓ 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 	<ul style="list-style-type: none"> ✗ asking for help with 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 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.

Academic Information

To help you plan your degree, assistance is available from academic advisors in [The Nucleus](#) and also in the [School of Chemical Engineering](#).

Additional support for students

- [Current Student Gateway](#) for information about key dates, access to services, and lots more information
- [Engineering Student Life - Current Student Resources](#) for information about everything from getting to campus to our first year guide
- [Student Support and Success](#) for our UNSW team dedicated to helping with university life, visas, wellbeing, and academic performance
- [Academic Skills](#) to brush up on some study skills, time management skills, get one-on-one support in developing good learning habits, or join workshops on skills development
- [Student Wellbeing, Health and Safety](#) for information on the UNSW health services, mental health support, and lots of other useful wellbeing resources
- [Equitable Learning Services](#) for assistance with long term conditions that impact on your studies
- [IT Service Centre](#) for everything to do with computing, including installing UNSW licensed software, access to computing systems, on-campus WIFI and off-campus VPNs

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 succeed. 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 fulfilling 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

In 2023, most classes at UNSW are running in a face-to-face mode only. Attendance is expected as is

participation in the classes. 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.

This course outline will have further details in the Course Schedule and Assessment sections.

Class numbers are capped in each class to ensure appropriate facilities are available, to maintain student:staff ratios, and to help maintain adequate ventilation in the spaces. Only students enrolled in each specific classes will be allowed in the room. Class rosters will be attached to corresponding rooms and circulated among lab demonstrators and tutors. No over-enrolment is allowed in face-to-face classes.

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.

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.

Note: This course outline sets out 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 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 (as updated in Moodle), the description in the Course Outline/Moodle applies.

Image Credit

Pilot Hall with experiment rigs // UNSW Chemical Engineering

CRICOS

CRICOS Provider Code: 00098G

Acknowledgement of Country

We acknowledge the Bedegal people who are the traditional custodians of the lands on which UNSW Kensington campus is located.