

FOOD3220, FOOD8220

Nutrition

Term 1, 2022



Course Overview

Staff Contact Details

Convenors

Name	Email	Availability	Location	Phone
Jayashree Arcot	j.arcot@unsw.edu.au	By appointment and meeting via TEAMS	416A, E10, Hilmer Building	9385 5360

Tutors

Name	Email	Availability	Location	Phone
Kingsley Kalu	k.kalu@unsw.edu.au	by appointment and during tutorial time		

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.

Course Details

Units of Credit 6

Summary of the Course

We all eat! How are we nourishing our body? What is the relationship between diet and good nutrition? This course will allow us to explore different foods and find out what nutrients are present; how are they digested and absorbed? How do they function in the body and where are they stored? We will explore the biochemical and physiological effects they have on humans in health and disease. Chronic diseases such as obesity, diabetes, coronary heart disease and how the physiology and biochemistry are altered will be understood. What are the dietary management principles that are to be followed in such conditions?

In addition you will have practical exercises learning how to measure the nutritional status of people using anthropometric and dietary intake techniques. How much of the nutrients we need through our diet everyday? You will also learn about the importance of nutrients and requirements throughout the life cycle. This is a core course under the Bachelors programs in Food Science and Technology/Food Science and Nutrition (4 year programs) and Food Science (3 years duration). A thorough understanding of biochemistry particularly the metabolism of energy, protein, fat and carbohydrates is essential.

Course Aims

On satisfactory completion of this course, students should have:

- gained an understanding of the role of nutrients in human structure and function
- understood the basic principles underlying the assessment of nutritional status of individuals and populations
- become proficient in the use of the food tables and calculation of nutrient intakes of individuals
- gained a general understanding of the nutritional issues of concern in the world and in Australia.

Course Learning Outcomes

1. Gained an understanding of the role of nutrients in human structure and function
2. Understood the basic principles underlying the assessment of nutritional status of individuals and populations
3. Become proficient in the use of the food tables and calculation of nutrient intakes of individuals
4. Gained a general understanding of the nutritional issues of concern in the world and in Australia
5. Exercise critical judgement with respect to scientific information
6. Communicate scientific information in a specific style

Professional Recognition of Course

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

Teaching Strategies

Please refer to the information in Moodle

Additional Course Information

This course requires a pre-requisite course in Biochemistry - BIOC2101 (Principles of Biochemistry) or BIOC2181 (Fundamentals of Biochemistry) or its equivalent. This course is also a pre-requisite for FOOD4104- Food and Health Security and FOOD4403- Advanced Nutrition. Assumed knowledge from the Biochemistry course such as structures of nutrients; chemical classifications of macronutrients, for example, proteins, carbohydrates and fats and their fundamental metabolic pathways is useful to understand the functions and metabolism of nutrients that will be dealt with in this course.

Assessment

Assessment tasks (Quizzes) will be done through MOODLE; Practical report through MOODLE Turnitin.

Assessment criteria and standards

Detailed assessment criteria for the practical report will be provided on MOODLE during session.

Assessment task	Weight	Due Date	Course Learning Outcomes Assessed
1. Quiz 1	15%	15/03/2022 10:00 PM	1, 2, 3, 4, 5, 6
2. Quiz 2- Progress Exam	15%	01/04/2022 10:00 PM	1, 2, 3, 4, 5, 6
3. Practical Report	20%	05/04/2022 11:00 PM	1, 2, 3, 4, 5, 6
4. Final Exam	50%	University Exam period	1, 2, 3, 4, 5, 6

Assessment 1: Quiz 1

Assessment length: 45 mins

Due date: 15/03/2022 10:00 PM

Multiple choice and short answer Quiz on tutorial material covered over three weeks. A summative assessment of three tutorials.

This is not a Turnitin assignment

Assessment criteria

50% mark (7.5 marks) is required to pass this assessment.

Assessment 2: Quiz 2- Progress Exam

Assessment length: 60 mins

Due date: 01/04/2022 10:00 PM

Multiple choice and short answer Quiz on material covered in Lectures from week 1-5

This is not a Turnitin assignment

Assessment criteria

50% (7.5 marks) is the pass mark.

Assessment 3: Practical Report

Due date: 05/04/2022 11:00 PM

1. Students will have a tutorial and practical session using the body composition analyser to estimate body composition as well as do anthropometric measurements in the anthropometry laboratory.
2. Dietary intake assessment on self by every student and submission of analysis using food to nutrient conversion software (FoodWorks).

A combined written report on both the exercises will be required.

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

Assessment criteria

50% (10 marks) will be the pass mark for this assignment.

Additional details

This report is based on the anthropometry and dietary intake exercise. Students are expected to comment on their physical attributes such as height, weight, circumference, skinfold measurement and body composition in comparison to reference standards available -**BASED ON THE PRACTICAL EXERCISES THAT ARE DONE**. In addition, each student will measure everything eaten for 3 DAYS as well as do a 24-hour dietary recall in a week chosen by the student in his or her own time from week 5-7. The aim is to assess one's nutrient intake and compare with the population dietary guidelines and compare anthropometric data with available population reference data.

Assessment 4: Final Exam

Assessment length: 2 hours

Due date: University Exam period

Final examination (essay-type questions) on material covered in the entire course

This is not a Turnitin assignment

Attendance Requirements

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

Course Schedule

All lectures will be delivered online via Microsoft TEAMS on Mondays (10-12pm) and Fridays (2-4pm) as indicated in the course schedule. Please follow the timetable. Any changes to the schedule will be announced via MOODLE.

The tutorials will run in hybrid mode (online and face-to-face) on Tuesdays (4-6pm) in Mathews 103.

[View class timetable](#)

Timetable

Date	Type	Content
Week 1: 14 February - 18 February	Lecture	All lectures in this course will be delivered online via teams in MOODLE Module 1: Fundamentals of Nutrition Monday: Lecture 1: Introduction: Food groups; Food Tables, dietary references Friday: Lecture 2: Body Composition, Nutritional Status measurements
	Tutorial	Tuesday: No Tutorial Reading material for Tutorial 1 in Week 2 will be posted on MOODLE by end of week 1.
Week 2: 21 February - 25 February	Lecture	All lectures in this course will be delivered online via MICROSOFT TEAMS Monday: Lecture 3: Proteins- classification, food sources, properties, digestion and absorption Friday: Lecture 4: Lipids- classification; food sources, Lipid digestion and absorption
	Tutorial	Online/Face-to-face Tuesday: Tutorial 1: Flipped Tutorial on Protein Metabolism Reading material and preparatory work for this tutorial will be posted by end of Week 1
Week 3: 28 February - 4 March	Lecture	Monday: Lecture 5: Carbohydrate- classification; properties; digestion and absorption

		Friday: Lecture 6: Energy
	Tutorial	ONLINE/Face-to-face Tuesday: Tutorial 2: Flipped Tutorial on Lipid Metabolism Reading material and preparatory work for this tutorial will be posted by end of Week 2 Assessment 1 Part 1: (5%): Quiz open on MOODLE for 20 mins from 6pm until 10pm.
Week 4: 7 March - 11 March	Lecture	Monday: Lecture 7: Water; electrolytes; Minerals- Functions and metabolism Friday: Lecture 8: Vitamins- fat soluble - functions and absorption
	Tutorial	ONLINE/face-to-Face Tuesday: Tutorial 3: Flipped Tutorial on Carbohydrate Metabolism Reading material and preparatory work for this tutorial will be posted by end of Week 2 Assessment 1 Part 2: (5%): Quiz open on MOODLE for 20 mins from 6pm until 10pm.
Week 5: 14 March - 18 March	Lecture	Monday: Lecture 9: Vitamins -Water Soluble- Functions and metabolism Module 2: Nutrition in Health Friday: Lecture 10: Nutrition in Pregnancy, Lactation and Infancy
	Tutorial	Face-to-face/Online Tuesday: Tutorial Lab 1: Body composition measurements (for students on campus) Assessment 1 Part 3: (5%): Quiz open on MOODLE for 20 mins from 6pm until 10pm.
Week 6: 21 March - 25	Lecture	Flexible Week- No lectures

March	Tutorial	Flexible Week- No tutorial
Week 7: 28 March - 1 April	Lecture	<p>Monday: Lecture 11: Nutrition in School-age, Adolescence and Elderly</p> <p>Module 3: Nutrition in Disease</p> <p>Friday: Lecture 12: Nutritional Deficiencies- Protein Energy Malnutrition; vitamin deficiencies</p> <p>Assessment 2- Progress Test on Lectures until WEEK 5 OPEN on MOODLE from 6-10pm.</p>
	Tutorial	<p>Online/Face-to-face</p> <p>Tuesday: Dietary intake tutorial using FOODWORKS</p>
Week 8: 4 April - 8 April	Lecture	<p>Monday: Lecture 13: Hypertension and Nutrition</p> <p>Friday: Lecture 14: Nutrition and Osteoporosis</p>
	Reading	Tuesday: Dietary intake analysis using FOODWORKS will commence with the tutor available for assistance and discussion.
Week 9: 11 April - 15 April	Lecture	<p>Monday: Lecture 15: Obesity and nutrition (This will be a guest lecture by Dr. Dorit Samocha-Bonet from the Garvan Institute of Medical Research)</p> <p>Friday: No Lecture- Good Friday HOLIDAY</p>
	Tutorial	<p>Tuesday: Compensatory Lecture due to Easter Holidays:</p> <p>Lecture 16: Lecture on Coronary Heart Disease and Nutrition; Nutrition and Dental Carries (compensating for lectures lost due to Easter holidays).</p>

Week 10: 18 April - 22 April	Lecture	Monday: EASTER MONDAY HOLIDAY Friday: Lecture 17: Nutrition and Diabetes Mellitus (This will be a guest lecture by Dr. Dorit Samocha-Bonet from the Garvan Institute of Medical Research)
	Tut-Lab	Tuesday, 19th April: Submission of Nutritional Assessment Report- 11 pm via MOODLE Turnitin
Study Week: 25 April - 28 April	Lecture	

Resources

Prescribed Resources

Readings and resources

Resources for Students

TEXT BOOK for course: can be purchased at the **UNSW Bookshop on campus.**

Mann, J and Truswell, AS. (2017) Essentials of Human Nutrition. 5th edition. Oxford University Press.

Print:

<https://www.bookshop.unsw.edu.au/details.cgi?ITEMNO=9780198752981>

Digital:

<https://unswbookshop.vitalsource.com/products/-v9780192522627>

Recommended Resources

Recommended Texts: These are available in Open Reserve in the Library and are suggested as recent references to complement lecture material.

1. Devlin, T.M. (ed) (2010) Textbook of Biochemistry with clinical correlations. 7th ed. New York: Wiley-Liss.
2. Eastwood, M. (2003) Principles of human nutrition. 2nd Edition Edinburgh, UK. Blackwell Science Ltd.
3. Garrow, J.S. and James, W.P.T. (eds) (2000) Human Nutrition and Dietetics. 10th edition. Edinburgh: Churchill Livingstone.

A range of food tables is also available in the School, which can be consulted for information about foods not found in the Australian tables.

Recommended websites:

<http://www.nhmrc.gov.au/publications/synopses/n35syn.htm>

<http://www.nhmrc.gov.au/publications/synopses/dietsyn.htm>

<http://www.nhmrc.gov.au/publications/synopses/dietsyn.htm>

http://www.nhmrc.gov.au/guidelines/consult/alcohol_guidelines.htm

<http://www.nhmrc.gov.au/publications/synopses/n16covr.htm>

Students can also obtain assistance from the UNSW Library. One starting point for assistance is: info.library.unsw.edu.au/web/services/services.html

Course Evaluation and Development

We want your feedback on this course, positive or negative. This is very important to us to learn what

has worked for students or not in terms of how the material has been delivered, explained or whether appropriate feedback on assessments have been provided. This will enable us as teachers of both lectures and tutorials to make the course better and provide a good student experience.

The student feedback surveys on both the 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 are tutorials and a tutorial lab in the course. This year all tutorials will be held face-to-face for students (following COVID- regulations) able to attend in person and online for students not able to attend. Hence tutorials will take place in hybrid mode. There will be one lab session for the Anthropometric measurements using the body composition analyser. This session will be face-to-face for those students who are able to attend. For students not residing in Sydney, some data will be provided and instructions on minimal anthropometric measurements that can be done in their home environment will be provided. All data obtained will need to be analysed and used in the report and discussed.

Lab1- Anthropometry practicals involves the use of the SECA body composition analyser to measure, body, fat, water based on the bioelectrical impedance technique. In addition, height, weight and body circumference measurements will be recorded.

Lab 2- This section of the lab is expected to be done by the student in his/her own time to measure dietary intakes. More information will be provided before the exercise on how to do the exercise and analyse using the FoodWorks software available through MyAccess website.

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 generally not required; 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 due respect. Presenting results clearly gives the marker the best chance of understanding your method; even if the numerical results are incorrect.

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). For some activities including Moodle quizzes 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 students will need to provide some documentary evidence to support absences from any assessments missed because of COVID-19 public health measures such as isolation. UNSW will **not** be insisting on medical certificates for COVID-related absences of 7 days or less, with the positive PCR or RAT result being sufficient. Longer absences due to self-isolation or COVID-related illness will still need documentation such as a medical certificate.

Applications for special consideration **will still be required** for assessment and participation absences related to COVID-19. Special consideration requests should not be lodged for missing classes if there are no assessment activities in that class.

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>.

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.

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](#)
- [Engineering Current Student Resources](#)
- [Student Support and Success](#)
- [Academic Skills](#)
- [Student Wellbeing, Health and Safety](#)
- [Equitable Learning Services](#)
- [IT Service Centre](#)

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.

On-campus class attendance

Physical distancing recommendations must be followed for all face-to-face classes. To ensure this, only students enrolled in those 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 class. Students enrolled in online classes can swap their enrolment from online to a **limited** number of on-campus classes by Sunday, Week 1.

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 are sick or have been advised to self-isolate by [NSW health](#) or government authorities. Current alerts and a list of hotspots can be found [here](#). Do not come to campus if you have any of the following symptoms: fever (37.5 °C or higher), cough, sore throat, shortness of breath (difficulty breathing), runny nose, loss of taste, or loss of smell. If you need to have a COVID-19 test, you must not come to campus and remain in self-isolation until you receive the results of your test.

You will not be penalised for missing a face-to-face activity due to illness or a requirement to self-

isolate. We will work with you to ensure continuity of learning during your isolation and have plans in place for you to catch up on any content or learning activities you may miss. Where this might not be possible, an application for fee remission may be discussed. Further information is available on any course Moodle or Teams site.

For more information, please refer to the FAQs: <https://www.covid-19.unsw.edu.au/safe-return-campus-faqs>

Image Credit

Dr Peter Wich

CRICOS

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Acknowledgement of Country

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