



# **FOOD3030**

Food Safety and Quality Assurance

Term Two // 2021

## Course Overview

### Staff Contact Details

#### Convenors

Name	Email	Availability	Location	Phone
Alison Jones	alison.jones@unsw.edu.au	appointment via email	Rm 433	9385 5745

### 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

### Credit Points 6

### Summary of the Course

How do you know that what you're eating is safe? When we purchase foods from the supermarket, the consistent quality and safety of that food is often taken for granted. A food company is only as good as the safety, quality and consistency of its product and thus an effective food safety and quality assurance plan can be the difference between a successful business and one that could potentially be shut-down. This course helps students understand the techniques and regulatory frameworks that food companies use to ensure that their products are consistently safe and acceptable. It looks at the risks associated with food production and the strategies that all sectors of the food industry use to control these risks, and create products that consistently meet the expectations of their customers.

This course presents a package of information and exercises designed to demonstrate the public health risks associated with the production and consumption of foods and the strategies adopted by industry, government and consumers to manage and control these risks. It also introduces students to the concepts of quality assurance (QA) and control (QC). The course begins with an overview of the regulatory framework concerned with food safety issues, followed by identification of major food hazards (chemical, physical and biological) and risk assessment methodology. The course then moves onto food safety and quality management systems including HACCP, VACCP and TACCP, followed by a discussion on operational issues and support programs related to food safety culture, quality auditing, waste management, traceability, hygiene and sanitation.

### Course Aims

The aims of the course are:

- To investigate some common chemical, physical and biological food safety hazards including their impact on human health and their legal limits.
- To discuss the principles and regulatory framework of food safety legislation with a particular emphasis on FSANZ and the Australian Food Standards Code.
- To examine the processes of risk assessment including: risk identification, risk analysis and risk communication.
- To examine the concept of quality and the various means to achieve it, with particular respect to the food industry.
- To develop student skills in designing and managing food safety programs, with a particular emphasis on HACCP.
- To enhance the student's ability to work effectively as part of a team in practical problems that require critical thinking and teamwork.

### Course Learning Outcomes

1. Understand an overview of industry and legislative approaches to the management of food safety and quality at state, national and international levels.
2. Identify food safety hazards and assess their impact on human health and/or manufacturing practice.
3. Conduct a risk assessment on specific food products using the Codex risk analysis framework.
4. Examine the concepts of food safety and quality assurance, its costs and benefits, how it is

monitored and the various means to achieve it with respect to the food industry.

5. Understand how to develop a HACCP program for specific food products using the Codex 12-step approach, working in a team environment.
6. Understand how to design an effective quality management program, working in a team environment.

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

This course involves primarily a series of technical lecture sessions, introducing students to concepts of food safety and quality assurance, and systems to manage these issues in the food industry. Various teaching strategies will be used to keep the lectures interactive and exploratory to enhance student learning experience and outcomes. These include “research-led teaching”, interactive and cooperative learning through group-work, and use of various teaching aids (e.g. multimedia, the internet). Guest lectures will be given by industry experts who will provide some “real world” examples and case studies of quality assurance and control principles in action in various sectors of the industry. Through assessment tasks, students, as individuals and in groups will have the opportunity to apply quality assurance principles in their own food products and “companies”. Through the various learning and teaching strategies, students will engage in experience of various graduate attributes, including informal and formal oral communication, information literacy, technical writing and teamwork.

## Additional Course Information

This is a 6UOC course with 4 hours of lecture and a further two-hours given over to reading and research work. Any remaining workload should be devoted to independent study and the completion of assessments.

This course is a Masters by coursework subject (FOOD8030) and a Year 3 core subject (FOOD3030). The pre-requisite courses are FOOD2320 & FOOD3010 or equivalent. FOOD3030/8030 is an amalgamation of Food Toxicology and Quality Control/ Quality Assurance. The food toxicology component of this course will focus on basic toxicokinetics and common chemical food hazards, while the food safety component will focus on food safety programs/ quality management systems and the related legislation/regulations.

It is assumed that students will have a basic understanding of food processing (thermal processing, freezing, chilling etc) and preservation principles (pH, water activity, chemical preservatives, oxygen partial pressure etc), as well as relevant food microbiology and how it relates to the safety and quality of foods. Why is this pre-requisite knowledge so important? Because this course will assume that students can identify food safety hazards (microbiological, chemical and allergen, physical) within a food process. It will also assume that students can correctly identify control points and ascertain whether they significantly reduce risk to an acceptable level.

## Assessment

### Assessment Tasks

Assessment task	Weight	Due Date	Student Learning Outcomes Assessed
Quiz	30%	Weeks 2, 5 and 9	1, 2, 4, 5, 6
Discussion Forum	10%	Week 8	1, 2, 3, 4, 6
HACCP Group Presentation	20%	Week 10	2, 3, 5, 6
Final Exam	40%	exam block	1, 2, 3, 4, 5, 6

### Assessment Details

#### Assessment 1: Quiz

##### Details:

**Moodle Quizzes (3 x 10%):** Three short Moodle quizzes consisting of multiple choice/ short-answer questions covering the lecture material. The quiz can be accessed and completed through the Moodle Quiz link on the course page in Moodle.

#### Assessment 2: Discussion Forum

**Details:** Students will be required to participate in a class discussion on a Moodle Forum. Full details are provided in the course outline on your Moodle course page.

#### Assessment 3: HACCP Group Presentation

##### Details:

As a group of approximately 5 students, you will be required to create an outline of a HACCP plan for a specific food product and present it to the class as an oral presentation or video presentation. Full details are provided in the course outline on your Moodle course page.

#### Assessment 4: Final Exam

**Start date:** Not Applicable

**Details:** A final exam is given during the exam block because the course learning outcomes include a significant level of technical content, which can be effectively assessed as an integrated application of knowledge and understanding in a final exam. The final exam will consist of high-level problems that will require students to **integrate and evaluate** the key knowledge and understandings presented during weeks 1-10 of the course.

## Attendance Requirements

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

## Course Schedule

[View class timetable](#)

### Timetable

Date	Type	Content
Week 1: 31 May - 4 June	Seminar	<b>BBCU Presentation from Industry Speaker: Food Safety Practices in Industry</b>
	Lecture	<b><i>Food Safety Legislation Frameworks</i></b>
Week 2: 7 June - 11 June	Seminar	<b><i>BBCU Presentation from Industry Speaker: Food Safety Careers</i></b>
	Lecture	<b><i>Food Hazards &amp; Risk Analysis</i></b>
	Assessment	Moodle Quiz 1
Week 3: 14 June - 18 June	Tutorial	<b>BBCU Tutorial: What does Risk Analysis look like?</b>
	Lecture	<b><i>Food Hazards &amp; Risk Analysis</i></b>
Week 4: 21 June - 25 June	Tutorial	<b>BBCU Tutorial: Navigating the Food Standards Code</b>
	Lecture	<b><i>Food Hazards &amp; Risk Analysis</i></b>
Week 5: 28 June - 2 July	Seminar	<b><i>BBCU Presentation with Guest Lecturer: Food Allergen Risk Management</i></b>
	Group Activity	<b><i>BBCU Group Activity: Allergen Risk Management</i></b>
	Assessment	Moodle Quiz 2
Week 7: 12 July - 16 July	Tutorial	<b>BBCU Tutorial: An introduction to HACCP</b>
	Lecture	<b><i>HACCP/ VACCP/ TACCP</i></b>
Week 8: 19 July - 23 July	Lecture	<b><i>Quality Management Systems/ Authenticity &amp; Traceability</i></b>
	Assessment	<b>Moodle Forum Discussion</b>
Week 9: 26 July - 30 July	Lecture	<b><i>Dealing with Retailer Food Safety Programs, Waste Management</i></b>
	Assessment	Moodle Quiz 3
Week 10: 2 August - 6 August	Assessment	HACCP Group Assessment in BBCU

## **Resources**

### **Prescribed Resources**

There is no expected textbook for this course. The required readings, web pages, documents and/or links will be provided to you through your Moodle course page.

### **Recommended Resources**

Useful resources and recommended texts will be provided to you through your Moodle course page.

### **Course Evaluation and Development**

Student feedback is extremely valuable and you are expected to provide feedback on the course. A Moodle tool has been created on the course web page which will become visible late in the session and allow you to evaluate the 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 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 10% 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 **not** be required to provide **any** documentary evidence to support absences from any classes missed **because of COVID-19 public health measures such as isolation**. UNSW will **not** be insisting on medical certificates from anyone deemed to be a positive case, or when they have recovered. Such certificates are difficult to obtain and put an unnecessary strain on students and medical staff.

Applications for special consideration **will** be required for assessment and participation absences – but no documentary evidence **for COVID 19 illness or isolation** will be required.



## 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**

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.