



# Course Outline (Higher Education)

<b>School:</b>	School of Science, Psychology and Sport
<b>Course Title:</b>	FOOD PROCESSING OPERATIONS
<b>Course ID:</b>	SCFSS2200
<b>Credit Points:</b>	15.00
<b>Prerequisite(s):</b>	(SCFSS1000)
<b>Co-requisite(s):</b>	Nil
<b>Exclusion(s):</b>	Nil
<b>ASCED:</b>	019905

## Description of the Course:

This course provides students with an advanced knowledge of technical aspects of food processing systems in large scale food manufacturing from handling of ingredients through to packaging of finished product. Students will also develop analytical and problem solving skills in industry-related scenarios, and learn to apply theoretical principles of science and technology in different scales and conditions of food processing.

**Grade Scheme:** Graded (HD, D, C, P, MF, F, XF)

**Placement Component:** No

**Supplementary Assessment:** Yes

Where supplementary assessment is available a student must have failed overall in the course but gained a final mark of 45 per cent or above and submitted all major assessment tasks.

## Program Level:

Level of course in Program	AQF Level of Program					
	5	6	7	8	9	10
Introductory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intermediate	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advanced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Learning Outcomes:

### Knowledge:

- K1.** Describe the application of food processing techniques in the food manufacturing.
- K2.** Recognise the important role processing conditions play in food quality.
- K3.** Define and control the interaction of processing factors and functionality of food components.
- K4.** Demonstrate the effect of processing methods and conditions on the physico-chemical and sensory properties of food.

**Skills:**

- S1.** Apply fundamentals of science and technology to describe requirements in processing and storage of food products.
- S2.** Identify risks associated with stability of products and means to minimise hazards.
- S3.** Demonstrate the ability to apply technical principles in different settings and scales of food preparation without compromises to quality.
- S4.** Demonstrate the capacity to search and select best practices and innovative approaches to food processing.

**Application of knowledge and skills:**

- A1.** Measure and characterise related quality parameters in food processing.
- A2.** Critically evaluate scientific data.
- A3.** Prepare a written report in an acceptable format using appropriate scientific language.

**Course Content:**

The course is concerned with both theoretical and practical aspects of food processing operations. Topics may include:

- Overview of unit operations and unit processes
- Preparation operations (eg, mixing, size reduction)
- Conversion operations (eg, emulsification, homogenisation, crystallisation)
- Food preservation techniques (thermal and non-thermal processes)
- Food packaging
- Processing examples of food groups (eg, fruit and vegetables and dairy or other food groups processing)
- Process control in food processing operations

**Graduate Attributes**

The Federation University Federation graduate attributes (GA) are entrenched in the [Higher Education Graduate Attributes Policy](#) (LT1228). FedUni graduates develop these graduate attributes through their engagement in explicit learning and teaching and assessment tasks that are embedded in all FedUni programs. Graduate attribute attainment typically follows an incremental development process mapped through program progression. **One or more graduate attributes must be evident in the specified learning outcomes and assessment for each FedUni course, and all attributes must be directly assessed in each program**

Graduate attribute and descriptor	Development and acquisition of GAs in the course	
	Learning Outcomes (KSA)	Assessment task (AT#)

Graduate attribute and descriptor		Development and acquisition of GAs in the course	
		Learning Outcomes (KSA)	Assessment task (AT#)
GA 1 Thinkers	Our graduates are curious, reflective and critical. Able to analyse the world in a way that generates valued insights, they are change makers seeking and creating new solutions.	K1-4, S3	AT1, AT2, AT3
GA 2 Innovators	Our graduates have ideas and are able to realise their dreams. They think and act creatively to achieve and inspire positive change.	N/A	N/A
GA 3 Citizens	Our graduates engage in socially and culturally appropriate ways to advance individual, community and global well-being. They are socially and environmentally aware, acting ethically, equitably and compassionately.	N/A	N/A
GA 4 Communicators	Our graduates create, exchange, impart and convey information, ideas, and concepts effectively. They are respectful, inclusive and empathetic towards their audience, and express thoughts, feelings and information in ways that help others to understand.	A3	AT2
GA 5 Leaders	Our graduates display and promote positive behaviours, and aspire to make a difference. They act with integrity, are receptive to alternatives and foster sustainable and resilient practices.	N/A	N/A

#### Learning Task and Assessment:

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
K1-4, S1-4, A1-3	Food processing practicals	Laboratory performance and associated reports and/or presentations	30-50%
K1-3, S4, A2-3	Assignment on food processing issues, trends and advances.	Written report and/or presentation	10-30%
K1-4, A2	Demonstrate and apply knowledge from course content in response to questions	Test	30-50%

#### Adopted Reference Style:

Australian Harvard

Refer to the [library website](#) for more information

Fed Cite - [referencing tool](#)