

# Course Outline (Higher Education)

**School:** School of Health and Life Sciences

**Course Title:** THE BREWING PROCESS

**Course ID:** SCBRW5082

**Credit Points:** 15.00

**Prerequisite(s):** (SCBRW5081 or SF480)

**Co-requisite(s):** Nil

**Exclusion(s):** (SF481)

**ASCED Code:** 019905

## Description of the Course :

This course will present a description of the production of wort in the brew house. It will include the chemical, biochemical and physical principles of unit operations, as applied in the brew house. This will include: physical principles of milling; mashing technology and biochemistry; wort separation and boiling; and wort cooling and aeration.

**Grade Scheme:** Graded (HD, D, C, etc.)

## Work Experience:

No work experience: Student is not undertaking work experience in industry.

**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:

AQF Level of Program						
	5	6	7	8	9	10
Level						
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 checked="" 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 biochemical and technological processes involved in wort production.
- K2.** Compare and contrast the principles and processes of wort separation.

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- K3.** Compare and contrast the principles and processes of wort boiling.
- K4.** Describe the appropriate analyses and specifications to assess wort quality.

## Skills:

- S1.** Formulate beer recipes and calculate brewery efficiencies using first principle calculations.
- S2.** Effectively and efficiently access information relevant to brewing.

## Application of knowledge and skills:

- A1.** Evaluate extract efficiencies in the brewing process.
- A2.** Critically assess scientific data.

## Course Content:

This course will describe the process of wort production in the brew house and the scientific principles underlying it. It will include the concepts of:

Topics may include:

- Principles of milling.
- Mashing technology and biochemistry.
- Separation of wort from spent grains.
- Wort boiling.
- Separation of trub from the wort.
- Wort cooling and aeration.
- Basic brewing calculations.

## Values:

- V1.** To develop a responsible attitude to the production and consumption of alcoholic beverages.
- V2.** To develop an awareness of the differences in cultural beliefs about alcoholic beverages.

## Graduate Attributes:

FedUni graduate attributes statement. To have graduates with knowledge, skills and competence that enable them to stand out as critical, creative and enquiring learners who are capable, flexible and work ready, and responsible, ethical and engaged citizens.

Attribute	Brief Description	Focus
Knowledge, skills and competence	Skills to find and interpret information independently.	High
Critical, creative and enquiring learners	Independent learning.	High
Capable, flexible and work ready	The role of alcoholic beverages in society.	Medium
Responsible, ethical and engaged citizens	Safety in the working environment.	High

## Learning Task and Assessment:

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
K1-K4, S2, A2	Tutorial questions based on problem based learning.	Tutorial questions.	20-40%

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Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
K1-K4, S2	On-line multiple choice tests.	On-line tests.	20%
S1, S2, A1	Brewing calculation - design a beer recipe and calculate efficiencies. Determine efficiency of brewery at workshop.	Calculations assignment.	20-40%
K1-K4	Written answers at the residential workshop.	Exam.	20%
K1-K4, S1, A1, A2	Attendance at workshop (partake in practical aspects of the workshop including brewing, sensory evaluation and analytical activities). Students are also required to give a short oral presentation.	Attendance (hurdle requirement).	S / U

## Adopted Reference Style:

Australian