



Unit Outline (Higher Education)

Institute / School: Institute of Innovation, Science & Sustainability

Unit Title: THE BREWING PROCESS

Unit ID: SCBRW5082

Credit Points: 15.00

Prerequisite(s): (SCBRW5081 or SF480)

Co-requisite(s): Nil

Exclusion(s): (SF481)

ASCED: 019905

Description of the Unit:

This unit 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, P, MF, F, XF)

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 Unit but gained a final mark of 45 per cent or above, has completed all major assessment tasks (including all sub-components where a task has multiple parts) as specified in the Unit Description and is not eligible for any other form of supplementary assessment

Course Level:

Level of Unit in Course	AQF Level of Course					
	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 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.
- 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.

Unit Content:

This unit 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.

Learning Task and Assessment:

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

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