



# EDSE13001 *Culinary Science for Teachers*

## Term 2 - 2018

Profile information current as at 07/05/2024 08:03 am

All details in this unit profile for EDSE13001 have been officially approved by CQU University and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

## General Information

### Overview

This unit explores why foods are prepared the way they are, why certain changes take place in them after undergoing cooking and how this knowledge may be used to improve the final product. Knowledge and skills acquired in this unit form an integral component to the teaching of Home Economics and its related subjects in secondary schools. This area of study aligns with the Home Economics syllabi and provides opportunities to develop strategies for designing activities that will challenge and engage students in the classroom and beyond.

### Details

Career Level: *Undergraduate*

Unit Level: *Level 3*

Credit Points: 6

Student Contribution Band: 7

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

There are no requisites for this unit.

Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the [Assessment Policy and Procedure \(Higher Education Coursework\)](#).

### Offerings For Term 2 - 2018

- Distance

### Attendance Requirements

All on-campus students are expected to attend scheduled classes - in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

### Residential Schools

This unit has a Compulsory Residential School for distance mode students and the details are:

Click here to see your [Residential School Timetable](#).

### Website

[This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.](#)

## Class and Assessment Overview

### Recommended Student Time Commitment

Each 6-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

### Class Timetable

#### [Regional Campuses](#)

Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

#### [Metropolitan Campuses](#)

Adelaide, Brisbane, Melbourne, Perth, Sydney

### Assessment Overview

#### 1. **Portfolio**

Weighting: 50%

#### 2. **Practical Assessment**

Weighting: 50%

### Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the [University's Grades and Results Policy](#) for more details of interim results and final grades.

## CQUniversity Policies

**All University policies are available on the [CQUniversity Policy site](#).**

You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the [CQUniversity Policy site](#).

## Previous Student Feedback

### Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

#### Feedback from Student survey data

**Feedback**

Making the experiment drafts a formative assessment task that counts to the final grade might encourage more people to upload fortnightly and not leave things until the last minute.

**Recommendation**

Allocate marks for draft fortnightly experiment submissions.

#### Feedback from Student survey data

**Feedback**

The textbook recipes were often wrong which was a little frustrating, however it was good for my learning to see what went wrong and figuring out why.

**Recommendation**

Current textbook is designed to promote critical thinking and problem solving; however, Unit Coordinator will investigate new textbook options.

#### Feedback from Student survey data

**Feedback**

The at home experiments were enjoyable and achievable.

**Recommendation**

Maintain 'at home' experiments.

## Unit Learning Outcomes

**On successful completion of this unit, you will be able to:**

1. Design and perform a series of food based experiments which develop practical skills associated with cookery and recipe construction.
2. Apply appropriate problem solving procedures to plan, sequence, implement and assess food production processes used in recipe construction.
3. Recognise and apply skills, sequences and procedures using design and problem solving processes required for teaching a range of cookery skills.
4. Critically evaluate specific applications of recipes and ingredients used in the production of edible foods.
5. Apply appropriate workplace health and safety practices for cookery.

This unit aligns with the following Australian Professional Standards for Teachers (Graduate Career Stage):

**Standard 2: Know the content and how to teach it**

2.1 Content and teaching strategies of the teaching area

2.2 Content selection and organisation

**Standard 4: Create and maintain supportive and safe learning environments**

4.4 Maintain student safety

**Standard 7: Engage professionally with colleagues, parents/carers and the community**

7.2 Comply with legislative, administrative and organisational requirements



## Textbooks and Resources

### Textbooks

EDSE13001

#### Prescribed

#### **Cooking as a Chemical Reaction: Culinary Science with Experiments**

(2014)

Authors: Z. Sibel Ozilgen

CRC Press

Bosa Roca , US

ISBN: 9781466554801

Binding: Paperback

[View textbooks at the CQUniversity Bookshop](#)

### IT Resources

#### You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)

## Referencing Style

All submissions for this unit must use the referencing style: [American Psychological Association 6th Edition \(APA 6th edition\)](#)

For further information, see the Assessment Tasks.

## Teaching Contacts

**Jay Deagon** Unit Coordinator

[j.deagon@cqu.edu.au](mailto:j.deagon@cqu.edu.au)

## Schedule

### Week 1 - 09 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Water	Chapter 1 - Measurements and Units (pp. 1-21) Chapter 2 - Basic Food Chemistry (pp. 23-32) Chapter 3 - Water in Culinary Transformations (pp. 33-79)	Conduct Experiment 3.4 (p.57) Orange Juice Yield Test

### Week 2 - 16 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Water	Chapter 1 - Measurements and Units (pp. 1-21) Chapter 2 - Basic Food Chemistry (pp. 23-32) Chapter 3 - Water in Culinary Transformations (pp. 33-79)	Submit draft Orange Juice Yield Test Lab Report

### Week 3 - 23 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
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Fats & Oils	Chapter 6 – Fats & Oils in Culinary Transformations (pp.135-195)	Conduct Experiment 6.4 (p. 215) Pastry Making: Sugar Cookie Recipe
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**Week 4 - 30 Jul 2018**

Module/Topic	Chapter	Events and Submissions/Topic
Fats & Oils	Chapter 6 – Fats & Oils in Culinary Transformations (pp.135-195)	Submit draft Sugar Cookie Lab Report

**Week 5 - 06 Aug 2018**

Module/Topic	Chapter	Events and Submissions/Topic
Carbohydrates Pigments: Acids & Bases	Chapter 4 – Carbohydrates in Culinary Transformations (pp. 81-133)	Conduct Experiment (not from textbook - see Moodle for details) Acids & Bases

**Vacation Week - 13 Aug 2018**

Module/Topic	Chapter	Events and Submissions/Topic
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**Week 6 - 20 Aug 2018**

Module/Topic	Chapter	Events and Submissions/Topic
Carbohydrates Pigments: Acids & Bases	Chapter 4 – Carbohydrates in Culinary Transformations (pp. 81-133)	Submit draft Acids & Bases Lab Report Commence preparation for Assessment Task 2 "Play with Your Food" Experiment and Teacher Demonstration

**Week 7 - 27 Aug 2018**

Module/Topic	Chapter	Events and Submissions/Topic
Proteins	Chapter 5 – Proteins in Culinary Transformations (pp. 135-195)	Conduct Experiment 5.9 (p. 181) Gels

**Week 8 - 03 Sep 2018**

Module/Topic	Chapter	Events and Submissions/Topic
Proteins	Chapter 5 – Proteins in Culinary Transformations (pp. 135-195)	Submit draft Gel Lab Report

**Week 9 - 10 Sep 2018**

Module/Topic	Chapter	Events and Submissions/Topic
Proteins	Chapter 5 – Proteins in Culinary Transformations (pp. 135-195)	Conduct Experiment 5.3 (p. 153) Steak

**Week 10 - 17 Sep 2018**

Module/Topic	Chapter	Events and Submissions/Topic
Proteins	Chapter 5 – Proteins in Culinary Transformations (pp. 135-195)	<p><b>Tuesday 18 September 2018 -</b> Submit list of ingredients to Unit Coordinator for Assessment Task 2: "Play with your Food" Experiment and Teacher Demonstration to be assessed at Residential School</p> <p><b>Laboratory Reports &amp; Resources</b> Due: Week 10 Monday (17 Sept 2018) 11:45 pm AEST</p>

**Week 11 - 24 Sep 2018**

Module/Topic	Chapter	Events and Submissions/Topic
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Compulsory attendance at Residential School **Tuesday 25 September to Friday 28 September 2018** (all days inclusive) Textbook required to conduct experiments at Residential School

Practical Cookery Skills will be assessed across all 4 days of the Residential School.  
Friday 28 September 2018  
Assessment Task 2: "Play with your Food" Experiment, Teacher Demonstration, Workplan.

**Practical Cookery, Teacher Demonstration & Resources** Due: Week 11 Friday (28 Sept 2018) 9:00 am AEST

#### Week 12 - 01 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic
Finalise Assessment Task 2		

#### Review/Exam Week - 08 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic
Finalise Assessment Task 2		

#### Exam Week - 15 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic
		<b>Monday 15 October 2018 submit Lesson Plan and Professional Reflection via Moodle</b>

## Term Specific Information

Residential School  
Week 11 Tuesday to Friday  
25-28 September 2018  
9:00am - 4:30pm daily (all days inclusive)  
CQUniversity Rockhampton City Campus  
Trade Training Kitchen

## Assessment Tasks

### 1 Laboratory Reports & Resources

#### Assessment Type

Portfolio

#### Task Description

#### Rational

To teach food related topics, you need to know the chemical reactions and processes that occur when food is prepared, cooked and stored. A knowledgeable, successful and inspiring food educator needs to possess the vocabulary, skills and abilities to construct and deliver content in fun and challenging ways. An appropriate teaching strategy to explain complex scientific processes is to perform laboratory testing and experiments on food. This experimental approach complements the 'hands on' and practical approach that underpins teaching and learning in food contexts.

#### The Task: 5 Food Experiments

Conduct 5 experiments as directed, drawn from the textbook and/or Moodle unit material. Each experiment will need to be completed at your home. The topics are:

1. Water: Orange Juice Yield Test
2. Fats & Oils: Pastry Making
3. Carbohydrates: Acids & Bases: Pigments
4. Proteins: Gel

## 5. Proteins: Steak

### What to Submit

Complete 5 laboratory reports and accompanying resources. You are expected to use the proforma Laboratory Report and Resources sheets provided which include:

1. Experiment Objective
2. Equipment and Ingredients
3. Method
4. Results tables
5. Results comparison and application of theory
6. Glossary of key terms
7. 50-100 word theoretical explanations of 3 key procedures or processes for each experiment with accompanying photographs

Detailed task descriptions, weekly study schedule, criteria sheets and proformas for Laboratory Reports and Resources are located on the Moodle site for this unit.

### Assessment Due Date

Week 10 Monday (17 Sept 2018) 11:45 pm AEST

### Return Date to Students

Draft submissions provide formative feedback to students via Moodle and written summative feedback 2 weeks after submission.

### Weighting

50%

### Minimum mark or grade

Pass

### Assessment Criteria

- Apply accurate and appropriate use of culinary science vocabulary and key concepts
- Explore teaching and learning challenges within the culinary science environment
- Construct resources appropriate for theoretical and practical culinary science lessons

### Referencing Style

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)

### Submission

Online

### Submission Instructions

Submit via Moodle. Compress all photographs.

### Learning Outcomes Assessed

- Design and perform a series of food based experiments which develop practical skills associated with cookery and recipe construction.
- Apply appropriate problem solving procedures to plan, sequence, implement and assess food production processes used in recipe construction.
- Recognise and apply skills, sequences and procedures using design and problem solving processes required for teaching a range of cookery skills.
- Critically evaluate specific applications of recipes and ingredients used in the production of edible foods.
- Apply appropriate workplace health and safety practices for cookery.

### Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice



## 2 Practical Cookery, Teacher Demonstration & Resources

### Assessment Type

Practical Assessment

### Task Description

#### Rational

Home Economics, Hospitality and Food educators not only require the skills and knowledge to demonstrate specific practical cookery skills, but also have the confidence to simultaneously deliver theory to an audience. Doing food related experiments is a fun and interactive way to engage students with content, but requires considerable teacher organisation and preparation. Practical Home Economics, Food & Nutrition or Food Technology classes are set apart from many other school subjects because of its application and 'hands on' philosophy. Before students are let loose in the kitchen, students need to understand explicitly what is required and expected of them. To scaffold (coach) the students through new knowledge and techniques, a teacher demonstration usually precedes each practical cookery lesson and can take 10 minutes or a whole lesson to complete. A teacher demonstration could be an experiment, taste testing, or a 'snap shot' of a complex task. The purpose of a teacher demonstration is to 'show' and 'tell' the students the specific techniques that they are expected to use while simultaneously delivering the theory that accompanies the topic they are learning about.

#### The Tasks

1. Practical: Compulsory attendance at Residential School and completion of all practical cookery tasks
2. Research: theory statement that explains the scientific procedures and processes for "Play with your Food" themed experiment and teacher demonstration (500 words)
3. Prepare: Lesson Plan and Workplan including ingredients, costing, estimated timing, utensils, and method required to deliver teacher demonstration
4. Present: 10 minute teacher demonstration to your peers
5. Reflect: Professional self-reflection on practical, research, preparation and performance (500 words)

Support for this task will be provided via weekly Zoom tutorials and a detailed task descriptions, weekly study schedule, criteria sheets and exemplars are located on Moodle.

Important Note: Attendance at Residential School is compulsory. Non-attendance will result in a failed grade for this unit.

### Assessment Due Date

Week 11 Friday (28 Sept 2018) 9:00 am AEST

Compulsory Attendance (all days inclusive) at Residential School; Theory Statement, Workplan & Demonstration Due Friday 29 September 2018; Lesson Plan and Reflection Due Tuesday 16 October 2018

### Return Date to Students

Feedback will be provided during the Residential School and 2 weeks after submission.

### Weighting

50%

### Minimum mark or grade

Pass

### Assessment Criteria

- Create a challenging and engaging food science activity appropriate for school students
- Build teacher confidence and deliver a teacher demonstration to a live audience
- Simultaneously demonstrate and verbally express technical cookery skills and chemical reactions theory
- Apply complex preparation and planning procedures to deliver a cookery demonstration
- Research and apply accurate and appropriate culinary science theory
- Engage in constructive peer feedback
- Critically reflect on professional practice and performance

### Referencing Style

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)

### Submission

Offline Online

### Submission Instructions

Theory Statement & WorkPlan due in hard copy on Friday at Res School. All other documentation submitted via Moodle by Tuesday 16 October.

### **Learning Outcomes Assessed**

- Design and perform a series of food based experiments which develop practical skills associated with cookery and recipe construction.
- Apply appropriate problem solving procedures to plan, sequence, implement and assess food production processes used in recipe construction.
- Recognise and apply skills, sequences and procedures using design and problem solving processes required for teaching a range of cookery skills.
- Critically evaluate specific applications of recipes and ingredients used in the production of edible foods.
- Apply appropriate workplace health and safety practices for cookery.

### **Graduate Attributes**

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

## Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the [Student Academic Integrity Policy and Procedure](#). This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

### What is a breach of academic integrity?

A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

### Why is academic integrity important?

A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

### Where can I get assistance?

For academic advice and guidance, the [Academic Learning Centre \(ALC\)](#) can support you in becoming confident in completing assessments with integrity and of high standard.

### What can you do to act with integrity?



#### Be Honest

If your assessment task is done by someone else, it would be dishonest of you to claim it as your own



#### Seek Help

If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)



#### Produce Original Work

Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem