



EDSE13001 *Culinary Science for Teachers*

Term 2 - 2017

Profile information current as at 04/05/2024 07:12 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 - 2017

- 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 evaluation survey

Feedback

The quizzes were a good addition to supplement learning.

Recommendation

Maintain quizzes.

Feedback from Student evaluation survey

Feedback

The scaffolding of learning was good and the fortnightly experiments made learning easier and enjoyable.

Recommendation

Maintain fortnightly experiment structure.

Feedback from Student evaluation survey

Feedback

Using probing questions or prompts can encourage students to source their own information, leading to a cumulative construct of knowledge helping to build on the learning through researching a range of key topics.

Recommendation

Include more independent research tasks in weekly content and ask more probing questions during Residential School.

Feedback from Student evaluation survey

Feedback

It would be better to make it Assessment Task 1 (Part A & B), then Assessment Task 2 (Part A & B).

Recommendation

Simplify assessment task formats.

Feedback from Student evaluation survey

Feedback

There was way too much waste of food products.

Recommendation

Investigate ways to reduce food wastage with experiment completed at home as well as at Residential School.

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

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Portfolio - 50%	•	•	•	•	•
2 - Practical Assessment - 50%	•	•	•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Communication	•	•	•	•	•
2 - Problem Solving	•	•	•	•	•
3 - Critical Thinking	•	•	•	•	•
4 - Information Literacy	•	•	•	•	•
5 - Team Work	•	•	•	•	•
6 - Information Technology Competence	•	•	•	•	•

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
7 - Cross Cultural Competence	•	•	•	•	•
8 - Ethical practice	•	•	•	•	•
9 - Social Innovation					
10 - Aboriginal and Torres Strait Islander Cultures					

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Portfolio - 50%	•	•	•	•		•	•	•		
2 - Practical Assessment - 50%	•	•	•	•	•	•	•	•		

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

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

Schedule

Week 1 - 10 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Water Orange Juice Yield Test	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)	1. Conduct Experiment 3.4 (p.57) 2. Take Photos 3. Complete Results Tables

Week 2 - 17 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Water Orange Juice Yield Test	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)	Friday 21 July 2017 upload draft Water Lab Report

Week 3 - 24 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Fats & Oils Pastry Making: Sugar Cookie Recipe	Chapter 6 - Fats & Oils in Culinary Transformations (pp.135-195)	1. Conduct Experiment 6.4 (p. 215) 2. Take Photos 3. Complete Results Tables

Week 4 - 31 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Fats & Oils Pastry Making: Sugar Cookie Recipe	Chapter 6 - Fats & Oils in Culinary Transformations (pp.135-195)	Friday 4 August 2017 upload draft Pastry Making Lab Report

Week 5 - 07 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Carbohydrates Pigments: Acids & Bases	Chapter 4 - Carbohydrates in Culinary Transformations (pp. 81-133)	1. Conduct Experiment (not from textbook - see Moodle for details) 2. Takes Photos 3. Complete Results Tables

Vacation Week - 14 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 21 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Carbohydrates Pigments: Acids & Bases	Chapter 4 - Carbohydrates in Culinary Transformations (pp. 81-133)	Friday 25 August 2017 upload draft Acids & Bases Lab Report Commence preparation for Assessment Task 2 "Play with Your Food" Experiment and Teacher Demonstration

Week 7 - 28 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Proteins Salt On Steak	Chapter 5 - Proteins in Culinary Transformations (pp. 135-195)	1. Conduct Experiment 5.3 (p. 153) 2. Take Photos 3. Complete Results Tables

Week 8 - 04 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
Proteins Salt On Steak	Chapter 5 - Proteins in Culinary Transformations (pp. 135-195)	Friday 8 September 2017 upload draft Salt on Steak Lab Report

Week 9 - 11 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
Proteins Gel	Chapter 5 – Proteins in Culinary Transformations (pp. 135-195)	1. Conduct Experiment 5.9 (p. 181) 2. Take Photos 3. Complete Results Tables

Week 10 - 18 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
Proteins Gel	Chapter 5 – Proteins in Culinary Transformations (pp. 135-195)	Tuesday 19 September 2017 - 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 No draft due this week. Assessment Task 1: Laboratory Reports & Resources Due: Week 10 Friday (22 Sept 2017) 5:00 pm AEST

Week 11 - 25 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
Compulsory attendance at Residential School Tuesday 26 September to Friday 29 September 2017 (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 29 September 2017 Assessment Task 2: "Play with your Food" Experiment, Teacher Demonstration, Workplan.

Week 12 - 02 Oct 2017

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

Review/Exam Week - 09 Oct 2017

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

Exam Week - 16 Oct 2017

Module/Topic	Chapter	Events and Submissions/Topic

Term Specific Information

Textbook: Purchase the textbook "Cooking as a Chemical Reaction" by Sibel Ozilgen. You can purchase the textbook via CQUniversity Bookshop - search EDSE13001. You will need the textbook for all assessment tasks.

Kitchen Access: Prior to commencement of this course you will need to secure the use of a fully functioning kitchen. The five (5) experiments in Assessment Task 1 require you to have access to a fully functioning kitchen.

Thermometer: You will need to purchase (if you don't already have one) a food thermometer with probe. **VERY IMPORTANT- FOR SAFETY REASONS** - do not use a medical, human, baby, pet, weather or household thermometer. The cooking thermometer must be kitchen safe and able to withstand extreme temperatures (hot and cold), with a long spike or probe, that will not melt, and must not contain mercury, so that you do not get injured, burnt or frozen. FOR TIPS ON WHAT TYPE OF THERMOMETER TO PURCHASE / USE - PLEASE LOCATE AND READ "Thermometers and using them with potentially hazardous food" Chapter 3 (Australia only) Australia New Zealand Food Standards Code available from Food Standards Australia New Zealand (FSANZ) website - <http://www.foodstandards.gov.au/consumer/safety/faqsafety/pages/foodsafetyfactsheets/thermometersandusing105.aspx>. Also see textbook pp. 4-5 for more information about cooking thermometers. You will need the thermometer for your first experiment in Week 1 and most other experiments thereafter.

Residential School Venue: CQUniversity, Trade Training Centre, B Block, Rockhampton City Campus, Canning Street, Rockhampton

Assessment Tasks

1 Assessment Task 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 Home Economics, Hospitality or 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 to teaching and learning complements the 'hands on' and practical approach that underpins Home Economics philosophy.

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: Salt On Steak
5. Proteins: Gel

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 Friday (22 Sept 2017) 5:00 pm AEST

Return Date to Students

Ongoing 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.

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 Assessment Task 2: Practical Cookery & Teacher Demonstration

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: 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)

Detailed task descriptions, weekly study schedule, criteria sheets and exemplars for Assessment Task 2 are located on the Moodle for this unit.

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

Assessment Due Date

26-29 September 2017 Compulsory Attendance (all days inclusive) at Residential School; Theory Statement, Workplan & Teacher Demonstration Due Friday 29 September; Reflection Due 6 October.

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 teacher 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

Submit Theory Statement & WorkPlan at Res School in hard copy, and all documents via Moodle.

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