

In Progress

Please note that this Unit Profile is still in progress. The content below is subject to change.



CHEM13084 *Bio-Organic Chemistry*

Term 2 - 2024

Profile information current as at 16/05/2024 02:06 am

All details in this unit profile for CHEM13084 have been officially approved by CQUniversity 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 will build on the organic chemistry aspects learnt in first and second year to an in-depth level. In this unit, you will learn theoretical and practical chemistry applications that encompass both in-depth organic and biochemistry components. You will become familiar with laboratory compliance procedures; identify and analyse risks and the appropriate risk-minimisation approaches. The theoretical concepts will include an in-depth overview of biomolecules (such as carbohydrates, nucleic acids, lipids and proteins) associated with metabolic functions, enzymes and their regulatory behaviour and the integrated regulation of metabolic pathways. Contents covered in this unit will provide students with attributes important for further studies and/or employment in any related area in the discipline of chemistry. Contents covered in this unit will enable you to be able to evaluate the implications of in-depth bio-organic chemistry associated with biochemistry, functional foods, manufacturing, environment and medical fields. Students will enhance their practical skills by applying the knowledge gained towards the operation and maintenance of common instruments used for chemical analysis and perform appropriate in-depth bioassays.

Details

Career Level: *Undergraduate*

Unit Level: *Level 3*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Pre-requisite: CHEM12080 Organic Chemistry

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 - 2024

- Mixed Mode

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

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 SUTE

Feedback

Students commended the residential school for its excellent hands-on experience, reinforcing key learning aspects of the course, and providing a practical, real-world context for unit learning.

Recommendation

Continue to maintain the standards and quality of the delivery of the residential school.

Feedback from SUTE

Feedback

Students expressed that the requirements and instructions for writing laboratory reports were not adequately provided.

Recommendation

The teaching team is committed to providing more comprehensive assessment criteria and instructions in future offerings.

Unit Learning Outcomes

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

1. Compare and contrast the structure and function of carbohydrates, nucleic acids, lipids and proteins
2. Evaluate the importance of enzymes for the regulation of metabolic processes
3. Interpret how living cells obtain biochemical energy from nutrients
4. Demonstrate skills in manipulation of laboratory apparatus, careful and systematic observation, precise recording and communication of experimental data.

The Applied Chemistry content of CU18 is in the process of applying for accreditation in 2021. As part of the content mapping against accreditation benchmarks, the learning outcomes of all units in the course have been mapped against the Learning Outcomes (LO) of the Royal Australian Chemical Institute (accrediting body).

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Written Assessment - 20%	•			
2 - Practical Assessment - 30%		•	•	•
3 - Examination - 50%	•	•	•	

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
1 - Communication	•	•	•	•
2 - Problem Solving	•	•	•	•
3 - Critical Thinking	•	•	•	•
4 - Information Literacy	•	•	•	•
5 - Team Work				•
6 - Information Technology Competence	•	•	•	•
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 - Written Assessment - 20%	•	•	•	•		•				
2 - Practical Assessment - 30%	•	•	•		•			•		
3 - Examination - 50%	•	•	•							

Textbooks and Resources

Information for Textbooks and Resources has not been released yet.

This information will be available on Monday 17 June 2024

Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.

This unit profile has not yet been finalised.