COURSE OUTLINE

TPP103 Chemistry

School: School of Education and Tertiary Access

2026 | Trimester 2

UniSC Sunshine Coast UniSC Moreton Bay UniSC Caboolture UniSC Fraser Coast UniSC Gympie	BLENDED LEARNING	Most of your course is on campus but you may be able to do some components of this course online.
Online	ONLINE	You can do this course without coming onto campus, unless your program has specified a mandatory onsite requirement.

Please go to unisc.edu.au for up to date information on the teaching sessions and campuses where this course is usually offered.

1. What is this course about?

1.1. Description

Chemistry impacts every part of our daily lives-from the food we digest, how our bodies rids itself of toxins, the purification of drinking water to the materials needed to place humans in space. Our future depends on science; imagine being part of new discoveries. You will acquire knowledge in the basic principles of chemistry which will support your study in undergraduate chemistry, cell biology and related disciplines. The course is designed for those students who have not taken high school chemistry, or who have done so and wish to refresh their knowledge and understanding.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Learning materials – You are required to engage and interact with pre-recorded learning materials accessed through Canvas.	1hr	Week 1	12 times
Tutorial/Workshop 1 – You will develop your understanding by engaging with on-campus activities which make application of the learning materials.	2hrs	Week 1	12 times
ONLINE			
Learning materials – You are required to engage and interact with pre-recorded learning materials accessed through Canvas.	1hr	Week 1	12 times
Tutorial/Workshop 1 – You will develop your understanding by engaging with online activities which make application of the learning materials.	2hrs	Week 1	12 times

1.3. Course Topics

- Matter and the structure of the atom
- The periodic table and electron configuration
- Ionic and covalent bonding with an introduction to organic chemistry
- Electronegativity, bond and molecule polarity, intermolecular forces
- Chemical reactions and the Mole
- Scientific notation and measurements
- Concentrations, water, acids and bases.

2. What level is this course?

100 Level (Introductory)

Engaging with discipline knowledge and skills at foundational level, broad application of knowledge and skills in familiar contexts and with support. Limited or no prerequisites. Normally, associated with the first full-time study year of an undergraduate program.

3. What is the unit value of this course?

12 units

4. How does this course contribute to my learning?

COURSE LEARNING OUTCOMES On successful completion of this course, you should be able to...		GRADUATE QUALITIES Completing these tasks successfully will contribute to you becoming...
1	Demonstrate theoretical knowledge of the atomic structure of matter in the world around us.	Knowledgeable Empowered
2	Extrapolate information from the periodic table to understand interactions and chemical bonding.	Knowledgeable Empowered
3	Explain chemical terms and concepts using scientific language.	Knowledgeable Empowered
4	Apply the law of mass conservation to balancing chemical equations.	Knowledgeable Empowered
5	Demonstrate mathematical knowledge, conceptual understanding and scientific reasoning skills with chemical calculations.	Knowledgeable Empowered

5. Am I eligible to enrol in this course?

Refer to the UniSC Glossary of terms for definitions of “pre-requisites, co-requisites and anti-requisites”.

5.1. Pre-requisites

Must be enrolled in Program TP000

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

Not applicable

5.4. Specific assumed prior knowledge and skills (where applicable)

Not applicable

5.5. Microcredential Information

Not applicable

6. How am I going to be assessed?

6.1. Grading Scale

Standard Grading (GRD)

High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL).

6.2. Details of early feedback on progress

Early feedback will be provided by completing the knowledge builder quizzes and the weekly end of chapter questions and answers in the Course Workbook. Task 1 results provide early feedback and feed-forward toward later assessment.

6.3. Assessment tasks

DELIVERY MODE	TASK NO.	ASSESSMENT PRODUCT	INDIVIDUAL OR GROUP	WEIGHTING %	WHAT IS THE DURATION / LENGTH?	WHEN SHOULD I SUBMIT?	WHERE SHOULD I SUBMIT IT?
All	1	Quiz/zes	Individual	10%	60 mins	Week 3	Online Submission
All	2	Artefact - Technical and Scientific	Individual	45%	1000 words	Refer to Format	Online Submission
All	3	Quiz/zes	Individual	45%	90 minutes	Exam Period	Online Test (Quiz)

All - Assessment Task 1: Atomic Structure Quiz

GOAL:	The goal is for you to review and demonstrate knowledge of key terms and concepts in atomic theory.
PRODUCT:	Quiz/zes
AUTHORSHIP STATEMENT:	
FORMAT:	The quiz will be available online after lesson 3. This quiz will consist of multiple-choice and short answer questions.
CRITERIA:	

No.		Learning Outcome assessed
1	Demonstration of theoretical knowledge of the atomic structure of matter in the world around us.	1 3
2	Interpretation of chemical terms and concepts using scientific language.	1 3
3	Extrapolation of information from the periodic table to explain chemical interactions and chemical bonding.	2

GENERIC SKILLS:	Communication, Applying technologies, Information literacy

All - Assessment Task 2: Chemistry Concepts

GOAL:	The goal is for you to review, demonstrate and apply knowledge of key terms and concepts in atomic theory, chemical bonding, shape and polarity; and to apply scientific reasoning to chemical calculations.
PRODUCT:	Artefact - Technical and Scientific
AUTHORSHIP STATEMENT:	
FORMAT:	This task requires students to produce artefacts - short written answers to scenario-based or problem-based questions. The artefacts are due between lesson 7 and lesson 10.

CRITERIA:

No.		Learning Outcome assessed
1	Demonstration of theoretical knowledge of the atomic structure of matter.	1
2	Demonstration of conceptual understanding with chemical calculations.	5
3	Demonstration of scientific reasoning skills with chemical calculations.	5
4	Extrapolation of information from the periodic table to explain electronic configuration, chemical formulae, ionic and covalent bonding.	2
5	Explanation of chemical terms and concepts using scientific language.	3
6	Application of the law of conservation of mass to balancing chemical equations.	4
7	Demonstrate mathematical knowledge with chemical calculations.	5

GENERIC SKILLS:	Communication, Problem solving, Information literacy

All - Assessment Task 3: Final Exam

GOAL:	You will review and demonstrate use of course terms and concepts including key themes from the whole course.
PRODUCT:	Quiz/zes
AUTHORSHIP STATEMENT:	
FORMAT:	The final exam is a supervised 90 minute quiz consisting of multiple-choice, short answer, and calculation questions. The password-protected quiz will be available on the Canvas course site.

CRITERIA:

No.		Learning Outcome assessed
1	Demonstration of theoretical knowledge of the atomic structure of matter in the world around us.	1
2	Extrapolation of information from the periodic table to explain interactions and chemical bonding.	2
3	Explanation of chemical terms and concepts using scientific language.	3
4	Application of the law of conservation of mass to balancing chemical equations.	4
5	Demonstration of mathematical knowledge, conceptual understanding and scientific reasoning skills with chemical calculations.	5

GENERIC SKILLS:	Communication, Problem solving, Applying technologies, Information literacy

7. Directed study hours

A 12-unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Student workload is calculated at 12.5 learning hours per one unit.

8. What resources do I need to undertake this course?

Please note: Course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Canvas site– Please log in as soon as possible.

8.1. Prescribed text(s) or course reader

> There are no required/recommended resources for this course.

8.2. Specific requirements

Students require a periodic table and a calculator (recommended: Casio Fx-82 AU Plus II 2nd edition).

9. How are risks managed in this course?

Health and safety risks for this course have been assessed as low. It is your responsibility to review course material, search online, discuss with lecturers and peers and understand the health and safety risks associated with your specific course of study and to familiarise yourself with the University's general health and safety principles by reviewing the online induction training for students, and following the instructions of the University staff.

10. What administrative information is relevant to this course?

10.1. Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Canvas, are electronically checked through Turnitin. This software allows for text comparisons to be made between your submitted assessment item and all other work to which Turnitin has access.

10.2. Assessment: Additional Requirements

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:
(a) The final mark is in the percentage range 47% to 49.4%; and
(b) The course is graded using the Standard Grading scale

Eligibility for Supplementary Assessment Your eligibility for supplementary assessment in a course is dependent of the following conditions applying: The final mark is in the percentage range 47% to 49.4% The course is graded using the Standard Grading scale You have not failed an assessment task in the course due to academic misconduct

10.3. Assessment: Submission penalties

Late submissions may be penalised up to and including the following maximum percentage of the assessment task's identified value, with weekdays and weekends included in the calculation of days late:
(a) One day: deduct 5%;
(b) Two days: deduct 10%;
(c) Three days: deduct 20%;
(d) Four days: deduct 40%;
(e) Five days: deduct 60%;
(f) Six days: deduct 80%;
(g) Seven days: A result of zero is awarded for the assessment task.

The following penalties will apply for a late submission for an online examination:
Less than 15 minutes: No penalty
From 15 minutes to 30 minutes: 20% penalty
More than 30 minutes: 100% penalty

10.4. Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Central Examinations
- Deferred Examinations
- Student Conduct
- Students with a Disability

For more information, visit https://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching

10.5. Student Charter

UniSC is committed to excellence in teaching, research and engagement in an environment that is inclusive, inspiring, safe and respectful. The Student Charter sets out what students can expect from the University, and what in turn is expected of students, to achieve these outcomes.

10.6. General Enquiries

For course-specific questions, contact your teaching staff or Course Coordinator.

For other enquiries or to access support, please contact Student Central:

- UniSC Student Central
- UniSC Adelaide Student Central