



## 1. General Course Information

### 1.1 Course Details

<b>Course Code:</b>	<b>FND002</b>
<b>Course Name:</b>	<b>Chemistry</b>
<b>Trimester:</b>	<b>Trimester 1, 2021</b>
<b>Program:</b>	Foundation
<b>Credit Points:</b>	10
<b>Course Coordinator:</b>	Jesse Rostagno
<b>Document modified:</b>	20 January 2021

### Course Description

This course provides students with an introduction to the molecular basis of physical properties of materials, the reasons chemical reactions occur, and the energy changes involved.

### Assumed Knowledge

There are no prerequisites for this course

## 1.2 Teaching Team

Your lecturer/tutor can be contacted via the email system on the portal.

Name	Email
Jesse Rostagno	<a href="mailto:jero@portal.griffithcollege.edu.au">jero@portal.griffithcollege.edu.au</a>

## 1.3 Staff Consultation

Your lecturer/tutor is available each week for consultation outside of normal class times. Times that your lecturer/tutor will be available for consultation will be found on the Course Site.

## 1.4 Timetable

Your timetable is available on the Griffith College Portal at Class Timetable in Student and Services.

## 1.5 Technical Specifications

All students must have access to a computer or suitable mobile device.

## 2. Aims, Outcomes & Generic Skills

### 2.1 Course Aims

The aim of this course is to provide students with an understanding of the basic concepts and processes of chemistry. Students will develop analytical, problem solving, calculation and technical report writing skills. Students will also develop an appreciation of safe and effective manipulative skills in the laboratory environment.



### 2.2 Learning Outcomes

After successfully completing this course you should be able to:

1. Use basic scientific terminology effectively and be able to recognise the different states of matter and their properties
2. Understand and distinguish between different types of chemical compounds, bonds and the ways their electrons behave.
3. Solve quantitative and qualitative chemical scenarios logically and show knowledge of different chemical reactions and relationships
4. Apply gas laws to numerous written problems and interpret Aqueous solutions and their properties



## 2.3 Generic Skills and Capabilities

For further details on the Generic Skills please refer to the Graduate Generic Skills and Capabilities policy.

Griffith College aims to develop graduates who have an open and critical approach to learning and a capacity for lifelong learning. Through engagement in their studies, students are provided with opportunities to begin the development of these and other generic skills.

Studies in this course will give you opportunities to begin to develop the following skills:

Generic Skills and Capabilities		Taught	Practised	Assessed
Acquisition of discipline knowledge and skills with critical judgement		✓	✓	✓
Communication and collaboration			✓	
Self-directed and active learning		✓	✓	
Creative and future thinking		✓	✓	✓
Social responsibility and ethical awareness				
Cultural competence and awareness in a culturally diverse environment				



## 3. Learning Resources

### 3.1 Required Learning Resources

Timberlake, K. C. (2018). *Basic Chemistry, Global Edition*. Your teacher will provide you with information on how to access the e-book and associated interactive activities

Non-programmable scientific calculator.

### 3.2 Recommended Learning Resources

N/A

### 3.3 College Support Services and Learning Resources

The College provides many facilities and support services to assist students in their studies. Links to information about College support resources that are available to students are included below for easy reference.

[Digital Library](#) – Databases to which Griffith College students have access to through the Griffith Library Databases.

MyStudy – there is a dedicated website for this course via MyStudy on the Griffith College Portal.

[Academic Integrity Tutorial](#) - this tutorial helps students to understand what academic integrity is and why it matters. You will be able to identify types of breaches of academic integrity, understand what skills you will need in order to maintain academic integrity, and learn about the processes of referencing styles.

Services and Support provides a range of services to support students throughout their studies including academic advice and assignment help from Student Learning Advisors, and personal and welfare support from Student Counsellors.

[Jobs and Employment](#) in the Student Hub can assist students with career direction, resume and interview preparation, job search tips, and more.

[IT Support](#) provides details of accessing support, information on s numbers and internet access and computer lab rules.

### 3.4 Other Information about your Learning

#### **Attendance**

You are expected to actively engage in all learning experiences and learning activities which underpin the learning content in this course. You are expected to engage with the learning content and learning activities outside of timetabled class times. This requires you to be an active agent of your learning. You are expected to bring all necessary learning resources to class such as the required textbook and /or Workbook. In addition, you are encouraged to BYOD (bring your own device) to class such as a laptop or tablet. This is not a requirement as computer lab facilities are available on campus, however, the use of such devices in the classroom is encouraged with appropriate and considerate use principles being a priority.

#### **Preparation and Participation in Learning**

In order to enhance your learning, you need to prepare before participating in the learning experiences. Absorb the learning content and complete the learning activities that are provided online before you attend the scheduled learning experiences. Make sure you complete the learning activities set each week, they are designed to support your learning. Active participation in your learning will enhance your success. Ask questions when something is unclear or when you want to bring some issue to your lecturer or tutor's attention; respond to questions to test your knowledge and engage in discussion to help yourself and others learn.

#### **Consultation Sessions**

Teachers offer extra time each week to assist students outside the classroom. This is known as 'consultation time.' You may seek assistance from your teacher on email or in person according to how the teacher has explained this to the class. Attendance during consultation time is optional but you are encouraged to use this extra help to improve your learning outcomes.

#### **Course Learning Materials**

Learning materials are made available to you in MyStudy on the Griffith College Portal. The learning materials are arranged in Modules. In each Module you will find the learning content, learning activities and learning experiences. Actively working your way through these course learning materials together with your lecturer or tutor will prepare you to succeed when completing the evidence of learning (assessment).

## Self-Directed Learning

You will be expected to learn independently. This means you must organise and engage with the course learning content even when you are not specifically asked to do so by your lecturer or tutor. The weekly guide will be helpful to organise your learning. This involves revising the weekly course learning material and completing the learning activities. It also means you will need to find additional information to evidence your learning (assessment) beyond that given to you, and to construct your own response to a question or topic. All of this requires careful planning of your time. Expect to spend, on average, at least 10 hours per week including class time for each of your courses.

## Program Progression

You are reminded that satisfactory Program Progression requires that attendance in classes is maintained at equal to or greater than 80%, and that GPA is maintained at equal to or greater than 3.5 [please see Griffith College Policy Library - [Program Progression Policy](#) - for more information].






## Teacher and Course Evaluation

Your feedback is respected and valued by your lecturers and tutors. You are encouraged to provide your thoughts on the course and teaching, both positive and critical, directly to your lecturer and tutor or by completing course and lecturer evaluations via Griffith College's evaluation tool whenever these are available.



## 4. Learning Content, Learning Activities and Learning Experiences

### 4.1 Modules for Learning and Weekly Learning Content, Learning Activities and Learning Experience

	Learning Content 	Learning experiences 	Learning activities 	Evidence of learning 	Learning outcome 
<b>Module 1 – Introduction to Chemistry, Measurements and Matter</b>					
1	Introduction to Chemistry	Online Zoom Class <ul style="list-style-type: none"><li>• Introduction to Course</li><li>• Discuss Course Outline</li><li>• Introduction to Chemistry</li><li>• Maths for Chemistry</li></ul>	Chapters 1 and 2 Associated eBook Activities - All		1
2	Matter	Online Zoom Class <ul style="list-style-type: none"><li>• Continue Maths and Measurements for Chemistry</li><li>• Introduction to Solids, Liquids and Gases</li></ul>	Ch. 3 Associated eBook Activities Up to 3.3		1

<b>Module 2 – Atoms, The Periodic Table and Electrons</b>					
<b>3</b>	Atoms and Elements	Online Zoom Class <ul style="list-style-type: none"> <li>• Module 1 Quiz</li> <li>• Elements and Symbols</li> <li>• The Periodic Table</li> <li>• Atoms, Atomic Numbers, Mass Numbers</li> <li>• Isotopes</li> </ul>	Ch. 4  Associated eBook Activities - All	<b>Module 1 Quiz - 10%</b>	2
<b>4</b>	Electronic Structure of Atoms and Periodic Trends	Online Zoom Class <ul style="list-style-type: none"> <li>• Atomic Spectra and Energy Levels</li> <li>• Sub-levels and Orbitals</li> <li>• Electron Configurations</li> <li>• Trends in Periodic Properties</li> </ul>	Ch. 5.2 Onwards  Associated eBook Activities - All		2
<b>5</b>	Ionic and Molecular Compounds	Online Zoom Class <ul style="list-style-type: none"> <li>• Ions and Ionic Compounds</li> <li>• Polyatomic Ions</li> <li>• Molecular Compounds</li> </ul>	Ch. 6  Associated eBook Activities - All		2
<b>6</b>	Bonding and Properties of Solids and Liquids	Online Zoom Class <ul style="list-style-type: none"> <li>• Lewis Structures</li> <li>• Electronegativity and Bond Polarity</li> <li>• Intermolecular forces</li> <li>• Changes of State</li> </ul>	Ch. 10  Associated eBook Activities – All		2
<b>Module 3 – Chemical Quantities and Reactions</b>					
<b>7</b>	Chemical Quantities	Online Zoom Class Module 2 Quiz <ul style="list-style-type: none"> <li>• Introduction to the mole</li> <li>• Molar Mass</li> <li>• Mass Percent</li> <li>• Empirical and Molecular Formulas</li> </ul>	Ch. 7  Associated eBook Activities - All	<b>Module 2 Quiz - 20%</b>	3
<b>8</b>	Chemical Reactions	Online Zoom Class <ul style="list-style-type: none"> <li>• Chemical Reactions</li> <li>• Balancing Chemical Equations</li> <li>• Chemical Reaction Types</li> <li>• Oxidation-Reduction Reactions</li> </ul>	Ch. 8  Associated eBook Activities - All		3

9	Chemical Quantities in Reactions	Online Zoom Class <ul style="list-style-type: none"> <li>• Conservation Mass</li> <li>• Mole Calculations</li> <li>• Mass Calculations</li> <li>• Limiting Reactants</li> <li>• Percentage Yield</li> <li>• Energy in Chemical Reactions</li> </ul>	Ch. 9 Associated eBook Activities - All		3
<b>Module 4 – Gases and Solutions</b>					
10	Gases	Online Zoom Class Module 3 Quiz <ul style="list-style-type: none"> <li>• Introduction to gases</li> <li>• Pressure, Volume and Temperatures</li> <li>• Gas Laws</li> </ul>	Ch. 11 Associated eBook Activities – All	<b>Module 3 Quiz – 25%</b>	4
11	Solutions and Reaction Rates and Chemical Equilibrium	Online Zoom Class <ul style="list-style-type: none"> <li>• Solubility</li> <li>• Solution Concentrations</li> <li>• Dilutions</li> <li>• Chemical Reactions in Solutions</li> <li>• Reaction Rates</li> <li>• Chemical Equilibrium</li> </ul>	Ch 12.3 – 12.6 Ch. 13 – 13.4 Associated eBook Activities – Specific Activities 12.3 – 12. 6 and 13 – 13.4		4
12	Acids and Bases	Online Zoom Class Module 4 Quiz <ul style="list-style-type: none"> <li>• Acids and Bases</li> <li>• The pH scale</li> <li>• Acid-Base Reactions</li> <li>• Acid-Base Titrations</li> </ul>	Ch. 14 Associated eBook Activities – All	<b>Module 4 Quiz – 25%</b>  <b>Deadline for Online Laboratory Simulations and Associated Activities – 20%</b>	4

## 5. Evidence of Learning (Assessment Plan)



### 5.1 Evidence of Learning Summary

	 Evidence of learning	 Weighting	 Learning outcome	 Due Date
1	Online Quiz 1	10%	1	Week 3
2	Online Quiz 2	20%	2	Week 7
3	Online Quiz 3	25%	3	Week 10
4	Online Quiz 4	25%	4	Week 12
5	Online Laboratory Activities	20%	3, 4	TBA

## 5.2 Evidence of Learning Task Detail

**Online Quizzes** – Combination of multiple choice, short and long answer questions to show knowledge of content learned in modules. Questions include simulations of reactions, with feedback after completion of the quizzes.

**Online Laboratories** – Combination of laboratory simulations and activities for concepts in modules 3 and 4. Students will be required to perform the online simulations and answer questions regarding the reactions.

## 5.3 Late Submission

An evidence of learning (assessment) item submitted after the due date, without an approved extension from the Course Coordinator, will be penalised. The standard penalty is the reduction of the mark allocated to the assessment item by 5% of the maximum mark applicable for the assessment item, for each working day or part working day that the item is late. Evidence of learning items submitted more than five working days after the due date are awarded zero marks.

Please refer to the Griffith College website - Policy Library > [Assessment Policy](#) for guidelines and penalties for late submission.

## 5.4 Other Information about Evidence of Learning

### Retention of Originals

You must be able to produce a copy of all work submitted if so requested. Copies should be retained until after the release of final results for the course.

### Requests for extension

To apply for an extension of time for an evidence of learning task, you must submit an [Application for Extension of Assignment](#) form to your teacher at least 24 hours before the date the assignment is due. Grounds for extensions are usually: serious illness, accident, disability, bereavement or other compassionate circumstances and must be able to be substantiated with relevant documentation [e.g. [Griffith College Student Medical Certificate](#)]. Please refer to the Griffith College website - [Policy Library](#) - for guidelines regarding extensions and deferred assessment.

### Return of Evidence of Learning Items

1. Marks awarded for in-trimester evidence of learning tasks, except those being moderated externally with Griffith University, will be available on the Student Portal within fourteen [14] days of the due date. This does not apply to the final evidence of learning task in this course (marks for this item will be provided with the final course result).
2. Students will be advised of their final grade through the Student Portal. Students can review their final exam papers after student grades have been published. Review of final exam papers will not be permitted after the final date to enrol.
3. Marks for **all** evidence of learning items including the final exam (if applicable) will be recorded in the Moodle Course Site and made available to students through the Moodle Course Site.

*The sum of your marks of evidence of learning items in this course does not necessarily imply your final grade for the course. Standard grade cut off scores can be varied for particular courses, so you need to wait for the official release of grades to be sure of your grade for this course.*



## 6. Policies & Guidelines

Griffith College assessment-related policies can be found in the [Griffith College Policy Library](#) which include the following policies:

[Assessment Policy](#), [Special Consideration](#), [Deferred Assessment](#), [Alternate Exam Sitings](#), [Medical Certificates](#), [Academic Integrity](#), [Finalisation of Results](#), [Review of Marks](#), [Moderation of Assessment](#), [Turn-it-in Software Use](#). These policies can be accessed within the [Policy Library](#)

**Academic Integrity** Griffith College is committed to maintaining high academic standards to protect the value of its qualifications. Academic integrity means acting with the values of honesty, trust, fairness, respect and responsibility in learning, teaching and research. It is important for students, teachers, researchers and all staff to act in an honest way, be responsible for their actions, and show fairness in every part of their work. Academic integrity is important for an individual's and the College's reputation.

All staff and students of the College are responsible for academic integrity. As a student, you are expected to conduct your studies honestly, ethically and in accordance with accepted standards of academic conduct. Any form of academic conduct that is contrary to these standards is considered a breach of academic integrity and is unacceptable.

Some students deliberately breach academic integrity standards with intent to deceive. This conscious, pre-meditated form of cheating is considered to be one of the most serious forms of fraudulent academic behaviour, for which the College has zero tolerance and for which penalties, including exclusion from the College, will be applied.

However, Griffith College also recognises many students breach academic integrity standards without intent to deceive. In these cases, students may be required to undertake additional educational activities to remediate their behaviour and may also be provided appropriate advice by academic staff.

As you undertake your studies at Griffith College, your lecturers, tutors and academic advisors will provide you with guidance to understand and maintain academic integrity; however, it is also your responsibility to seek out guidance if and when you are unsure about appropriate academic conduct.

In the case of an allegation of a breach of academic integrity being made against a student he or she may request the guidance and support of a Griffith College Student Learning Advisor or Student Counsellor.

Please ensure that you are familiar with the Griffith College Academic Integrity Policy; this policy provides an overview of some of the behaviours that are considered breaches of academic integrity, as well as the penalties and processes involved when a breach is identified.

For further information please refer to the Griffith College website - Policy Library > [Academic Integrity Policy](#)

### **Reasonable Adjustments for Assessment – The Disability Services policy**

The [Disability Services policy](#) (accessed within the [Policy Library](#)) outlines the principles and processes that guide the College in making reasonable adjustments to assessment for students with disabilities while maintaining academic robustness of its programs.

### **Risk Assessment Statement**

There are no out of the ordinary risks associated with this course.

---

Copyright © - Griffith College

Note: For all Diploma level programs, Griffith College acknowledges content derived from Griffith University.