

1. General Course Information

1.1 Course Details

Course Code:	FND002
Course Name:	Chemistry
Trimester:	Trimester 1, 2020
	Foundation Program
Program:	
Credit Points:	10
Course Coordinator:	Jesse Rostagno
Document modified:	15 January 2020

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 or assumed knowledge for this course

1.2 Teaching Team

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

Name	Email
Jesse Rostagno	jero@portal.griffithcollege.edu.au

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 given in the first week of lectures. A list of times and rooms will be published on the Griffith College Portal under the "Support and Services/Teacher Consultation Times" link.

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.
- 2. Recognise the different states of matter, their properties and their resulting chemical reactions.
- 3. Solve quantitative and qualitative chemical scenarios logically.
- 4. Perform a range of chemical reactions in the laboratory whilst following correct health and safety procedures.
- 5. Use critical thinking to support logical and abstract ideas with research material from scholarly databases.

2.3 Generic skills

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	Taught	Practised	Assessed
Written Communication		Yes	Yes
Oral Communication		Yes	

Information Literacy		Yes	Yes
Secondary Research	Yes	Yes	Yes
Critical and Innovative Thinking		Yes	Yes
Academic Integrity	Yes	Yes	Yes
Self Directed Learning		Yes	
Team Work		Yes	
Cultural Intelligence		Yes	
English Language Proficiency		Yes	

3. Learning Resources

3.1 Required Resources

Assessable course workbook available for purchase through the campus book shop

Cracolice, M. & Peters, E. (2013). Introductory Chemistry. an active learning approach, 5th ed. Brooks/Cole. ISBN 978-1-111-99007-7

A scientific calculator is essential in this course and should be brought to class each week.

An approved laboratory coat and safety glasses are also required for laboratory classes.

3.2 Recommended Resources

Glencoe Chemistry: Matter and Change (online text) available here, and on the portal: http://www.marric.us/files/HS_chem_solving_problems.pdf

Course notes will be available on the Griffith College portal. Students can download these before lectures.

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.

<u>Digital Library</u> – 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.

<u>Academic Integrity Tutorial</u> - 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 personal support such as Counselling; Academic support; and Welfare support.

Jobs and Employment in the <u>Student Hub</u> can assist students with career direction, resume and interview preparation, job search tips, and more.

<u>IT Support</u> provides details of accessing support, information on s numbers and internet access and computer lab rules.

3.4 Other Learning Information

Attendance

You are expected to attend all lectures and tutorials and to actively engage in learning during these sessions. You are expected to bring all necessary learning resources to class such as the required textbook and /or Workbook. In addition, you may 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 Class

In order to enhance learning, prepare before lectures and tutorials. Read the relevant section of your text book before a lecture, and for a tutorial read both the textbook and the relevant lecture notes. If you have been given tutorial exercises, make sure you complete them. Active participation in lectures and tutorials will improve your learning. 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 Materials

Lecture notes will be made available to you in MyStudy on the Griffith College Portal and you are advised to either print these out and bring them to each class so that extra notes can be added or BYOD (bring your own device) and add extra notes digitally.

Self-Directed Learning

You will be expected to learn independently. This means you must organise and learn the course content even when you are not specifically asked to do so by your lecturer or tutor. This involves revising the weekly course material. It also means you will need to find additional information for some assessment items beyond that given to you in textbooks and lecture notes, 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 and Teaching Activities

4.1 Weekly Learning Activities

Weekly	Learning Activities		
Week	Topic	Readings	Learning Outcomes

1	Introduction to chemistry - matter and changes of matter. Data analysis. Overview of Course Assessment	Cracolice: chapters 1 – 2 Glencoe online text: chapters 1 – 3	1,2
2	Atomic theory: electron configuration and chemical periodicity.	Cracolice: chapters 5 + 11 Glencoe online text: chapters 4 – 6	1,2
3	Elements, Ionic compounds and nomenclature. Metallic bonds	Cracolice: chapter 6, 12 Glencoe online text: chapters 7 – 8	1,2
4	Covalent compounds and nomenclature. Electronegativity, structure and shape.	Cracolice: chapter 6, 12 Glencoe online text: chapter 9	1,2
5	Chemical change and chemical reactions. Balancing chemical equations. Introduction to the mole	Cracolice: chapters 8 – 9 Glencoe online text: chapters 10 – 11	1,2,3
6	Quantity relationships in chemical reactions	Cracolice: chapter 10 Glencoe online text: chapters 11 – 12	1,2,3
7	States of matter – intermolecular forces. Gases, liquids, and solids	Cracolice - Chapters 4 and 15 Glencoe online text: chapters 13 – 14	1,2,3,5
8	Aqueous solutions Acids and bases	Cracolice - Chapters 16 – 17 Glencoe online text: chapters 15 and 19	1,2,3,5
9	'Chemical Equilibrium, Redox Reactions and Electrochemistry	Cracolice: chapters 2 and 18 Glencoe online text: chapters 16 – 18	1,2,3,5
10	Laboratory 1 – Observational Skills, Reactivity and Solubility	n/a	1,2,3,4
11	Laboratory 2 - Titrations	n/a	1,2,3,4
12	Revision		1,2,3,4,5

5. Assessment Plan

5.1 Assessment Summary

Item	Assessment Task	Weighting	Relevant Learning Outcomes	Due Date
1	Mid Trimester Exam	25%	1,2,3	Week 7

2	Research Assignment	15%	1,5	Week 9
3	Workbook	20%	1,2,3,4	Week 12
4	Final Exam	40%	1,2,3,4,5	Exam Period

5.2 Assessment Detail

Course assessment is divided into two sections:

- 1) theoretical and conceptual understanding is tested in the mid trimester exam, the final exam and the research assignment.
- 2) the application of theoretical concepts is tested in the Laboratory exercises.

You are to complete all assessment individually.

Mid-trimester exam: The mid-trimester exam will be a one hour examination held in class during week 7. It will include material covered during weeks 1 - 6.

Research Assignment: The assignment will focus on a topic which may not be covered in class. It will assess your ability to understand and also to apply the concepts to a practical problem. You will be expected to research and demonstrate your understanding and interpretation of the literature and how it relates to our knowledge of the world today.

Workbook: The workbook will be assessed weekly during the workshops on your ability to understand and answer questions around each topic presented in class. Effort, tidiness and accuracy will all be assessed, as well as your laboratory sessions.

Laboratories: The laboratory component of the course is composed of two experimental sessions . The laboratory investigations assess your ability to operate safely and proficiently in a chemical laboratory, to collect and organise data, and to use complex reasoning processes. As part of the laboratory exercises, you will be given instruction on how to process data and understand the different parts of written reports. You will be required to complete the two separate laboratory sections of your assessable workbook - these involve presenting and interpreting the data that you have collected.

Final Exam: The final examination assesses your knowledge and applied skills in topic areas related to and developed during the course. It gives you an opportunity to demonstrate learning throughout the trimester. It provides a culmination point to encourage a planned effort and consistent application and requires you to review and apply material covered in the trimester. Any material that is either a) covered in classes, b) discussed within the required reading textbook, c) referred to as 'other required reading' during trimester, may be assessed in the projects, exercises and the Final Exam.

Satisfactory completion of the course

To satisfactorily complete the course, you must achieve a minimum overall mark of 50%. PLEASE NOTE: The assignment is required to be submitted to Turnitin. Failure to obtain and attach a satisfactory Originality Report will mean that the assignment will be investigated to determine if a breach of Academic Integrity is evident. Detailed instructions and a Marking Guide will be provided during the trimester. Late submissions will attract a penalty as described in the Assessment policy.

5.3 Late Submission

An 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. Assessment 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 Assessment Information

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 assignment, you must submit an <u>Application for Extension of Assignment</u> 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. <u>Griffith College Student Medical Certificate</u>]. Please refer to the Griffith College website - Policy Library - for guidelines regarding extensions and deferred assessment.

Return of Assessment Items

- Marks awarded for in-trimester assessment items, 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 assessment item 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 exam papers after student grades have been published (see relevant Griffith College Fact Sheet for allocated times at Support> Factsheets). Review of exam papers will not be permitted after the final date to enrol.
- 3. Marks for **all** assessment 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 overall assessment 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 Sitting, Medical Certificates, Academic Integrity, Finalisation of Results, Review of Marks, Moderation of Assessment, Turn-it-in Software Use. These policies can be accessed using the 'Document Search' feature within the <u>Policy Library</u>

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, premeditated 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 using the Document Search' feature with the <u>Policy Library</u>) 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.

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