

# JAMES COOK UNIVERSITY

School of Pharmacy and Molecular Sciences  
Faculty of Medicine, Health & Molecular Sciences  
Department of Chemistry

**COURSE TITLE:** CH1012:03 Molecular Chemistry

**SUBJECT CO-ORDINATOR:  
AND TEACHING STAFF**

Dr Mike Liddell  
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**CONSULTATION TIMES:**

Room E1.102B 12-1pm

**LECTURE TIMES:**

Tuesday	11:00	Room E1.022
Friday	10:00	Room E1.022
Friday	14:00	Room E1.022

**TUTORIALS:**

Friday	15:00	Room E1.022
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**WORKSHOP:**

Friday	11:00	Room E1.022
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**PRACTICALS:**

Tuesday	14:00	Room E1.113
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**PRACTICALS:** 3 hours laboratory per week over the semester, 9 laboratory practicals in total. *Students should obtain copies of the CH1012 Practical and Report Books from the Medicine, Health, Molecular Sciences Faculty Office (E1).* The CH1012 Laboratory manual and report book are available as read-only Word files on the LearnJCU CH1012 WEB site. Submitted reports must be in the printed Report Book. A refundable breakage deposit of \$20 must be paid one week prior to the practical classes commencing. Refunds of the breakage deposits will occur after the last week of semester and for 4 weeks past this date.

Supervisor: Dr M. Liddell

**PRACTICAL REPORTS:** These must be handed in either at the end of the practical session or as directed in the Laboratory Manual. All practical reports will be marked and returned to student 2 weeks after completion of the practical sessions. Where a student is absent from a practical and has a valid medical certificate the marks will be entered with due proportionality.

**MEDICAL CERTIFICATES:** These must be submitted to your practical demonstrator within one week of returning to classes.

**ATTENDANCE:** Students must participate and complete the assessment in all 10 practical exercises unless a valid medical certificate is presented as soon after the practical session as is possible. Attendance at >80% of the practicals is required to pass the subject. Attendance at tutorials is optional but students will find them helpful in preparing for final examinations. NB: students must turn off mobile phones before entering tutorials and practicals.

**EXAMINATIONS:** Supplementary examinations are offered in this subject to those students who have not passed the subject after the final exam but have performed reasonably during the semester. Deferred examinations may be awarded on presentation of a medical certificate within one week of the examination date. A request for a deferred examination will be refused if the student has a poor record of participation (lack of attendance at lectures, tutorials, practicals, or failure to submit assessable material).

**LEARNING OBJECTIVES:** To provide an understanding of the basic principles of molecular chemistry and their importance in scientific disciplines such as environmental, biological and earth sciences.

**REFERENCE MATERIALS:**

Recommended texts :

- 1) **Brown-Le May-Bursten “Chemistry 10<sup>e</sup>” (Prentice Hall, 2006).**
- 2) **McMurray “Fundamentals of Organic Chemistry 6<sup>th</sup>” (Brooks/Cole, 2007) with Harcourt Organic CD-ROM.**

Library: 1 copy of each in reserve

The LearnJCU CH1012 Web site (<http://learnjcu.jcu.edu.au>) will be used extensively for additional course materials including the assessed Modules. In addition students may be referred to particular material which will be placed in the Reserve Collection in the JCU Library.

**PLAGIARISM:** Plagiarism is the act of taking and using another's work as one's own. It includes doing the following without the due acknowledgment or clear indication of origin- directly copying any part of any else's work, using very close paraphrasing or summarising of another's work, using or developing an idea or thesis derived from another's work, using the experimental results that have been obtained by someone else. An act of plagiarism is a form of academic misconduct, along with activities like- the fabrication of data, claiming results where none has been obtained, the falsification of data, including changing records or preferentially rejecting results, for example where they do not support a research hypothesis, misleading ascription of authorship. Acts of plagiarism will be penalised by the award of no marks for a particular assignment or practical.

**WORKLOAD:** It is expected that students should on average spend 10 hours per week on this subject. This is inclusive of class contact time.

**DISABILITIES :** Students with a disability and who require special arrangements or consideration should contact the Disability Resources Officer in the Equal Opportunity Unit which is housed on the ground floor of the JCU Library. They can also be contacted by phone – ext 5152.

**PREPARATION:** Normally, at least a Sound Achievement in Chemistry and Mathematics B at Senior secondary level is assumed as a pre-requisite or the appropriate bridging courses.

**COURSE CONTENT:** Lectures (33) assisted by tutorials(10) and WEB based multimedia mode presentation of aspects of descriptive inorganic, organic and physical chemistry. The subject description in the Calendar gives details of the actual content covered.

<b>ASSESSMENT:</b>	Theory	- 42%: A 2-hour examination in June.
	Practical	- 20%: Continually assessed during the semester
	Tests	- 33%: Continually assessed during the semester
	Modules	- 5%: Continually assessed during the semester

You must achieve an average of over 40% across the invigilated components of the subject (ie the Theory examination) to pass the subject.

## GRADUATE ATTRIBUTES

Graduate attributes are divided into generic skills and graduate qualities. As graduate qualities are not easily amenable to assessment on a subject-by-subject basis only the generic skills are mapped in this document. In the table below the extent to which each of the generic skills are covered in this subject is listed.

<b>GENERIC SKILLS</b>	<b>Rating 0-3</b>
<b><i>Literacy and Numeracy</i></b>	
Ability to critically read demanding texts	2
Ability to speak and write clearly	1
Ability to generate, interpret numerical information	2
<b><i>Information Literacy</i></b>	
Ability to access information	1
Ability to evaluate information	2
Understanding of legal, ethical social issues relating to information	0
Ability to select, organise and cogently communicate information	2
<b><i>Critical thinking and problem solving</i></b>	
Ability to think critically, evaluate claims, deploy evidence	3
Ability to adapt knowledge to new situations	2
Ability to deploy information to practical ends	2
Ability to define and solve problems in at least one discipline area	2
<b><i>Self reliance and interpersonal understanding</i></b>	
Ability to communicate effectively with a range of audiences	1
<b><i>Ability to lead, manage and contribute to teams</i></b>	
Ability to work with people of differing age, gender etc	1
Ability to work individually and independently	2
<b><i>Using tools and technologies</i></b>	
Ability to select and use appropriate tools and technologies	2
Ability to use online technologies effectively and ethically	2
<b><i>Learning achievement</i></b>	
Acquisition of skills.. from one discipline area	3
Ability to reflect on and evaluate learning	1
Ability to manage future career and personal development	1

Score: 0 = not covered significantly, 1 = covered peripherally, 2 = covered significantly, but not a primary focus, 3= a major focus of the subject.