Unit Outline 2014
Faculty of Education, Science, Technology and Mathematics

Chemistry 1b
1517
This Unit Outline must be read in conjunction with:

a)  *UC Student Guide to Policies*, which sets out University-wide policies and procedures, including information on matters such as plagiarism, grade descriptors, moderation, feedback and deferred exams, and is available at *(scroll to bottom of page)*

http://www.canberra.edu.au/student-services

b)  *UC Guide to Student Services*, and is available at *(scroll to bottom of page)*

http://www.canberra.edu.au/student-services

c)  Any additional information specified in section 6h.

1:  General Information

1a  Unit title
    Chemistry 1b

1b  Unit number
    1517

1c  Teaching Period and year offered
    Semester 2, 2014

1d  Credit point value
    3

1e  Unit level
    1

1f  Name of Unit Convener and contact details (including telephone and email)
    Associate Professor Dr Ashraf Ghanem, Room 3D41, Phone: (02) 6201 2089
    Email: ashraf.ghanem@canberra.edu.au  Website: www.chiralitygroup.com

1g  Name of Unit Moderator
    Marwa Ahmed

1h  Administrative contact details (including name, location, telephone and email)
    Academic Programs Office 6C38
    EStE-M-courseadvice@canberra.edu.au
    6201 2400
2: **Academic Content**

2a **Unit description and learning outcomes**
This course is an introductory study of Organic Chemistry. The course begins with an introduction to the fundamentals of Organic Chemistry, including the Chemistry of Carbon, atomic structure, the nature of chemical bonds, hybridisation, nomenclature and an introduction to chemical reactions. This is followed by the study of synthesis, reactions mechanisms, reactions of alkanes, alkenes, alkynes, alkyl halides, alcohols, ethers and amines, aldehydes and ketones, carboxylic acids and derivatives, Chirality in medicine and the stereochemistry of organic compounds, nucleophilic substitution and elimination reactions and their use in organic synthesis, amino acids and proteins, carbohydrates, polymers and lipids. These fundamentals are then applied to examine a selected range of topics in the environmental, consumer and health related areas. Topics such as plastics and recycling, pesticides, chiral pharmaceutical drugs, soap, slime and glue making are all examined from a chemical perspective. The laboratory covers the applications of the theoretical concepts showing the science behind interesting experiments (e.g. Slime, Glue, Soap…etc). Emphasis will be placed on developing problem-solving skills and promoting understanding of the concepts.

At the end of this unit it is expected that students will be able to:

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

1. work to the standards of good laboratory practice both individually and in cooperation with others;
2. set up experiments that demonstrate their understanding of the chemical principles involved in the topics covered in this subject;
3. read the chemical literature and use software for independent learning of the more advanced concepts of second year chemistry subjects.

2b **Generic skills**
The University recognises that individuals entering its programs bring with them a diversity of personal and professional attributes that should be further developed by their experience as students and graduates of the University. These generic skills can be accessed at: [https://guard.canberra.edu.au/policy/policy.php?pol_id=3030](https://guard.canberra.edu.au/policy/policy.php?pol_id=3030)

By the end of their course, graduates will have developed skills and attributes in:

1. **Communication**
The ability to present knowledge, ideas and opinions effectively and communicate within and across professional and cultural boundaries

2. **Analysis and inquiry**
The ability to gather information, and to analyse and evaluate information and situations in a systematic, creative and insightful way

3. **Problem solving**
The ability to apply problem-solving processes in novel situations; to identify and analyse problems then formulate and implement solutions
4. Working independently and with others
The ability to plan their own work, be self-directed, and use interpersonal skills and attitudes to work collaboratively

5. Professionalism and social responsibility
The capacity and intention to use professional knowledge and skills ethically and responsibly, for the benefit of others and the environment

Personal attributes
As students of the University they will develop the qualities of critical thinking, curiosity and reflective practice. They will use foresight, initiative and leadership, and be open to alternative perspectives. As graduates, they will continue to learn and thrive in environments of complexity, ambiguity and change.

Generic skills that are emphasised in this unit are referred to in the assessment overview (5a).

2c Prerequisites and/or co-requisites
Chemistry 1a

2d Accreditation
Not Applicable to this unit.

3: Delivery of Unit and Timetable

3a Delivery mode
On campus: regular on-campus attendance is expected, (online content support provided) with weekly lectures/tutorials/seminars/practicals.

3 one hour lectures per week for 12 weeks. (total of 36 lectures)
1 two hour laboratory session per week for 10 weeks.
1 one hour tutorial session per week for 10 weeks
66 hours total contact time.

<table>
<thead>
<tr>
<th>Lecture Timetable</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>Wed 16:30-17:30</td>
</tr>
<tr>
<td>L2</td>
<td>Thu 11:30-12:30</td>
</tr>
<tr>
<td>L3</td>
<td>Fri 12:30 – 13:30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Back to basics (run by SRC)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fri 11:30-12:30</td>
<td>2B09</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Laboratory Timetable</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Tue 11:30-13:30</td>
</tr>
<tr>
<td>P2</td>
<td>Tue 14:30 – 16:30</td>
</tr>
<tr>
<td>P3</td>
<td>Tue 17:30-19:30</td>
</tr>
<tr>
<td>P4</td>
<td>Wed 9.30-11.30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tutorial Timetable</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>Tue 11:30-12:30</td>
</tr>
<tr>
<td>T2</td>
<td>Tue 12:30-13:30</td>
</tr>
<tr>
<td>T3</td>
<td>Tue 13:30-14:30</td>
</tr>
<tr>
<td>T4</td>
<td>Wed 9:30-10:30</td>
</tr>
<tr>
<td>T5</td>
<td>Wed 10:30-11:30</td>
</tr>
<tr>
<td>T6</td>
<td>Wed 12:30-13:30</td>
</tr>
<tr>
<td>T7</td>
<td>Wed 15:30-16:30</td>
</tr>
<tr>
<td>T8</td>
<td>Wed 17:30-18:30</td>
</tr>
<tr>
<td>T9</td>
<td>Thu 9:30-10:30</td>
</tr>
<tr>
<td>T10</td>
<td>Thu 10:30-11:30</td>
</tr>
<tr>
<td>T11</td>
<td>Thu 15:30-16:30</td>
</tr>
</tbody>
</table>
The availability of each laboratory and tutorial session is subject to enrolment numbers. Laboratory and tutorial groups will be finalised by the end of Week 2 of semester.

**EXTRA TUTORIALS:** To assist students who experience difficulty understanding the unit material, optional extra tutorials are available:

An optional SRC ‘BACK TO BASICS’ tutorial will be held 11.30 - 12.30 on Fridays (Room 02B09; this session appears as LC/01 on the timetable) – refer to Moodle for more information on the sessions scheduled. This session is specifically designed to assist students to grasp the fundamental concepts underpinning the unit and may be particularly useful for students who have not studied Organic Chemistry previously (ALL students are welcome to attend if they wish).

The Extra Tutorial Program runs through the Science Resource Centre (SRC). This program covers at least 3 hours of extra tutorials per week for all 12 weeks of semester. Tutorial times will be posted on Moodle and in the Science Resource Centre (Room 6B103). During these sessions you will work in small groups with a student mentor who has recently and successfully completed Chemistry 1b.

### 3b Timetable of activities, such as lectures/ tutorials/ practicals/ field classes, showing key dates and topics

<table>
<thead>
<tr>
<th>Week</th>
<th>Beginning Date</th>
<th>Lecture No.</th>
<th>Lecture Topic</th>
<th>Laboratory</th>
<th>Tutorial</th>
<th>Test Quiz</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-week</td>
<td>04/08/2014</td>
<td>1</td>
<td>Chemistry of carbon</td>
<td>Laboratory Orientation</td>
<td>No Tute</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>Hydrocarbon compounds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>organic functional groups, alkanes and alkenes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>11/08/2014</td>
<td>4</td>
<td>Chemistry of carbon, Part 2</td>
<td>L1 Organic Functional Groups</td>
<td>T1 Introduction to hydrocarbons</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>Aromatic substitution</td>
<td></td>
<td>TQ1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
<td>Chemistry of carbon, Part 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>18/08/2014</td>
<td>7</td>
<td>Chirality</td>
<td>Laboratory Orientation</td>
<td>No Tute</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>8</td>
<td>Molecular shapes/isomers</td>
<td>T2 Alkenes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>9</td>
<td>Chirality</td>
<td></td>
<td>TQ2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>25/08/2014</td>
<td>10</td>
<td>Haloalkanes</td>
<td>Laboratory Orientation</td>
<td>No Tute</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>11</td>
<td>S_N1 and S_N2 reactions</td>
<td>T3 Aromatic compounds</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
<td>Haloalkanes</td>
<td></td>
<td>TQ3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>01/09/2014</td>
<td>13</td>
<td>Alcohols, Amines and ethers</td>
<td>Laboratory Orientation</td>
<td>No Tute</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>14</td>
<td>Alcohol, amines and ethers</td>
<td>T4 Alkyl halides, S_N1 and S_N2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>Alcohol, amines and ethers</td>
<td></td>
<td>TQ4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>08/09/2014</td>
<td>16</td>
<td>Aldehydes and ketones</td>
<td>Laboratory Orientation</td>
<td>No Tute</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td>Aldehydes and ketones</td>
<td>T5 Elimination, Alcohols, Phenols &amp; Ethers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>Aldehydes and ketones</td>
<td></td>
<td>TQ5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>15/09/2014</td>
<td>19</td>
<td>Carboxylic acids and derivatives</td>
<td>Laboratory Orientation</td>
<td>No Tute</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>20</td>
<td>(Organic acids and bases)</td>
<td>T6 Aldehydes, ketones and carboxylic acids</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>21</td>
<td>Carboxylic acids</td>
<td></td>
<td>TQ6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>22/09/2014</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4: Unit Resources

4a Lists of required texts/readings
Prescribed book: David Klein, Organic Chemistry, John Wiley & Sons. This text is available for purchase through the Coop bookshop and for temporary loan in the University of Canberra Library. An electronic version of the textbook is also available for purchase at a reduced price (approximately 60% of the hard copy price); see www.wileyplus.com for more details.

Recommended reading: Blackman, A et al. Chemistry. John Wiley & Sons Australia, Ltd, Milton, Australia. This text is available for temporary loan in the University of Canberra library.

For Unit readings and resources in the University of Canberra Library
Link to search page for Unit Readings (print materials)
Link to search page for eReserve (electronic materials)

4b Materials and equipment
The Chemistry 1b Laboratory/Tutorial Manual will provide material required for the laboratory/tutorial sessions throughout the semester. The manual will be distributed free of charge during the first laboratory/tutorial session in Week 1; the electronic version is also available on the Moodle website.

Laboratory coats, safety glasses and closed footwear (which cover your feet completely) are mandatory in all laboratory classes. Laboratory coats and safety glasses are available from stores such as UC Union Shop (located on campus in the Hub) and/or work wear stores.
4c Unit website

To find your unit site online, login to LearnOnline(Moodle) using your student ID.

Note: Your unit site has a profiles page that displays your name and email address for the benefit of other students. If you prefer to hide your email address, click here for instructions.

5: Assessment

All staff and students are required to read the document named ‘Assessment Responsibilities’ on the following link to ensure accurate understanding of the various perspectives surrounding assessment at UC. It can alleviate many misunderstandings.

5a Assessment overview

<table>
<thead>
<tr>
<th>Assessment item (including exams held in the exam period)</th>
<th>Due date of assignments</th>
<th>Weighting (total to equal 100%)</th>
<th>Addresses learning outcome(s)</th>
<th>Related generic skill(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory</td>
<td>End of each lab session</td>
<td>10%</td>
<td>2,3</td>
<td>3,5</td>
</tr>
<tr>
<td>Tutorial assessment</td>
<td>End of each tutorial session</td>
<td>10%</td>
<td>1</td>
<td>1,2,3,4</td>
</tr>
<tr>
<td>Moodle quizzes</td>
<td>Weekly</td>
<td>10%</td>
<td>1</td>
<td>2,4,5</td>
</tr>
<tr>
<td>Mid-semester test</td>
<td>10 October 2014</td>
<td>30%</td>
<td>1</td>
<td>1,2,4,5</td>
</tr>
<tr>
<td>Final examination</td>
<td>End of semester exam period</td>
<td>40%</td>
<td>1</td>
<td>1,2,4,5</td>
</tr>
</tbody>
</table>

Key for UC Generic Skills
1 - Communication
2 - Analysis and Inquiry
3 - Problem Solving
4 - Working independently and with others
5 - Professionalism and Social Responsibility

5b Details of each assessment item

Laboratory Assessment (10%)
The laboratory sessions are designed to develop essential practical skills associated with the unit and to develop/enhance your understanding of chemical concepts, and are therefore compulsory.

Each laboratory session involves:

(a) pre-lab questions (answering a set of questions before attending the session),
(b) activities to learn about the science behind the experiments (this will need reading of the materials in the handout and answering the questions before coming to the lab),
(c) applying the theory (by doing some experiments and recording the observations),

At the commencement of each laboratory session, student’s pre-lab question and activities answers will be checked; therefore students are required to attempt these questions before arriving for the session. At the end of each session students will submit the corresponding laboratory handout from their Laboratory and Tutorial Workbook for marking and feedback.
by their demonstrator. It is recommended that the students use a ring folder to hold their workbook during the semester to facilitate the submission of the laboratory handouts.

If students cannot attend their normal laboratory session for a particular week, they may be allowed to attend another session for that week in consultation with the unit convenor (email chem1b@canberra.edu.au). Students not able to attend any session for a particular week will need to submit a medical certificate or some other evidence to justify their absence. The minimum participation in the laboratories requirement must be met in order to pass the unit (regardless of supporting documentation). In the event of prolonged illness you should consult with the unit convenor as soon as possible. No mark will be given for a lab or tut the student did not attend for whatever reason.

During the laboratory sessions students must wear protective clothing (a laboratory coat and safety glasses), and enclosed shoes that completely cover the foot.

**Tutorials (10%)**

The tutorial sessions are designed to engage students in the learning process and to assist students to master some of the unit material through conceptual understanding while developing essential learning skills. Process-oriented guided-inquiry learning (POGIL) activities have been selected to enable students to use a learning cycle design of exploration and concept formation followed by application. Most of the tutorial activities will be completed with students working in small groups within their tutorial session, with the tutor acting as a facilitator. At the end of each session students will submit the corresponding tutorial handout from their Chemistry 1b Laboratory and Tutorial Workbook for marking and feedback by their tutor. It is recommended that the students use a ring folder to hold their workbook during the semester to facilitate the submission of the tutorial handouts.

If students cannot attend their normal tutorial session for a particular week, they may be allowed to attend another session for that week in consultation with the Unit Convener (email chem1b@canberra.edu.au). Students not able to attend any session for a particular week will need to submit a medical certificate or some other evidence to justify their absence. The minimum participation in the tutorials requirement must be met in order to pass the unit (regardless of supporting documentation). In the event of prolonged illness you should consult with the Unit Convener as soon as possible.

**Moodle quizzes (10%)**

The weekly Moodle quiz, consisting of multiple choice questions and/or calculations, will contain questions relating to concepts covered in the previous week. Practice quizzes will also be available on Moodle prior to the assessable test quiz. The practice quizzes can be attempted multiple times for the purposes of revision and will not contribute to your overall mark. *Each test quiz will be 1 hour in duration (unless stated otherwise) and only one attempt is permitted. The test quiz will open on Friday 5:00 pm of the previous week and close on Sunday, the week after, at 23:59 pm (total 9 days).* If you have any difficulties in accessing the test quiz during this time, you should contact the unit convenor as soon as possible (email Chem1b@canberra.edu.au).

All Moodle quizzes will be used to calculate your Moodle quiz component marks.

**Mid-semester test (30%)**

This is a 2-hour test. Scientific calculator and dictionaries are not allowed. This test covers lecture topics covered in Weeks 1 – 7, laboratory 1-5 and tutorials 1 – 6 (refer to schedule above). The mid-semester test is scheduled for Week 9 (tentatively Friday 10th Oct from 11:30 – 1:30pm); these details will be confirmed on Moodle closer to the time.
Final examination (40%)

This is a 3-hour examination. A scientific calculator and dictionaries are not allowed. This test covers the lecture, laboratory and tutorial topics covered in throughout the semester, with emphasis on Weeks 9 – 13. The exam will be scheduled during the formal final examination period at the end of the semester.

Feedback on all assessment items will be provided in a timely and constructive manner.

5c Submission of assessment items
All assessment items must be uploaded to Moodle. Where an assignment cannot be uploaded to Moodle eg. presentations in person, case files, physical models or objects, files too large to upload, the details for submission will be provided in section 5b.

Students will be asked to confirm the following online declaration at the point of submission.

I certify that:

• the attached assignment is my own work and no part of this work has been written for me by any other person except where such collaboration has been authorised by the lecturer/s concerned;
• material drawn from other sources has been fully acknowledged as to author/creator, source and other bibliographic details according to unit-specific requirements for referencing; and
• no part of this work has been submitted for assessment in any other unit in this or another Faculty except where authorised by the lecturer/s concerned.

The first page of each assessment submission should include the following information:

Student Name:
Student ID:
Assessment Name:
Date of Submission:
Word Count (if applicable):

Late submission of assignments
Late submission of assignments without an approved extension will result in the assignment not being marked and zero being recorded for that particular assignment. In extenuating circumstances a late submission may be considered upon the production of supporting documentation and at the discretion of the unit convener.

Extensions: Extensions must be applied for before the due date
Students can apply for an extension to the submission due date for an assessment item on the grounds of illness or other unavoidable and verifiable personal circumstances. Documentary evidence will be expected for an extension to be granted.

It should be noted that such documentation will be considered but will not guarantee that the application will be successful. The Unit Convener will decide whether to grant an extension and the length of the extension.

Responsibility for understanding
If there is any doubt with regard to the requirements of any particular assignments or assessment procedure, the onus for clarifying the issue rests with the student who should contact the unit Convener or tutor. Further, it is the responsibility of students to ensure that they are correctly enrolled in the unit and that the tutor and Student Administration have their correct contact details.
Deferred examinations  Provisions will be made for students who are unable to sit
either the mid-semester test or end of semester examination and produce appropriate
medical certificates or other documentation. **In the event a student misses the mid-
semester test** due to illness or other exceptional circumstances (refer to eligibility
criteria), they must submit a Faculty of ESTeM Science Deferred Examination
Request form (available on Moodle), along with appropriate documentation (original
or certified copy), within 3 working days to the ESTeM Academic Program Office
(either by email ESTeM-courseadvice@canberra.edu.au or in person Room 6C38). If
their request is approved students will be allowed to sit a deferred mid-semester test at
a later date (as chosen by the unit convener). **In the event a student misses the end of
semester examination** due to illness or other exceptional circumstances, the procedures
outlined on [http://www.canberra.edu.au/student-services/examinations/alternative-
exams](http://www.canberra.edu.au/student-services/examinations/alternative-exams)
must be followed (including submitting deferred application form within 3 days
of scheduled exam to the Examinations Office).

**In the event a student misses the end of semester examination** due to illness or other
exceptional circumstances, the procedures outlined on [http://www.canberra.edu.au/student-
services/examinations/alternative-exams](http://www.canberra.edu.au/student-services/examinations/alternative-exams) must be followed (**including submitting the online
defferred application form within 3 days of scheduled exam to the Examinations Office**).

Only test quizzes will be submitted on moodle. Tutorial/lab handouts should be submitted to
the lab demonstrator/tutor at the end of each session for written feedback.

5d Special assessment requirements
Normally an aggregate mark of 50% is required to pass the unit.
Formal assessment in this unit is based on laboratory and tutorial activities, Moodle quizzes and two
written tests.

Students must achieve 50 % or higher between Mid-semester and Final examinations to pass this unit
(MST + EST = 50%). Full details for each assessment item will be available on the Moodle site.

The following criteria must also be satisfied to pass this unit:

Participation in laboratory and tutorial sessions is a compulsory condition of this unit. A
student must participate in at least 80 % of the laboratory and tutorial sessions in order to pass
the unit.

A minimum of 50 % in the laboratory assessment must be achieved in order to pass the unit.

The unit convener reserves the right to question students orally on any of their submitted
work.

5e Supplementary assessment
Supplementary assessment will usually only be offered to students who have failed a single
unit in their final semester with a final mark between 45-49% and the unit is required for
course completion. Refer to the UC [Supplementary Assessment Policy](http://www.canberra.edu.au/student-services/examinations/alternative-exams).

5f Academic Integrity
Students have a responsibility to uphold University standards on ethical scholarship. Good
scholarship involves building on the work of others and use of others’ work must be
acknowledged with proper attribution made. Cheating, plagiarism, and falsification of data are
dishonest practices that contravene academic values. Please see UC’s [Student Conduct Rules](http://www.canberra.edu.au/student-services/examinations/alternative-exams).
To enhance understanding of academic integrity, it is expected that all students will complete the LearnOnline Academic Integrity Module (AIM) at least once during their course of study. The module is automatically available as a listed site when students log into LearnOnline.

5g **Use of text-matching software**
The University of Canberra has available, through LearnOnline (Moodle), text-matching software that helps students and staff reduce plagiarism and improve understandings of academic integrity. Known as URKUND, the software matches submitted text in student assignments against material from various sources: the internet, published books and journals, and previously submitted student texts. Click here for further information on the URKUND text-matching software.

**6: Student Responsibility**

6a **Workload**
The amount of time you will need to spend on study in this unit will depend on a number of factors including your prior knowledge, learning skill level and learning style. Nevertheless, in planning your time commitments you should note that for a 3cp unit the total notional workload over the semester or term is assumed to be 150 hours. These hours include time spent in classes. The total workload for units of different credit point value should vary proportionally. For example, for a 6cp unit the total notional workload over a semester or term is assumed to be 300 hours.

The amount of time you will need to spend on study in this unit will depend on a number of factors including your prior knowledge, learning skill level and learning style. Nevertheless, in planning your time commitments you should note that for a 3cp unit the total notional workload over the semester or term is assumed to be 150 hours. These hours include time spent in classes. The total workload for units of different credit point value should vary proportionally. For example, for a 6cp unit the total notional workload over a semester or term is assumed to be 300 hours.

6b **Inclusion and Welfare**
Students who need assistance in undertaking the unit because of disability or other circumstances should inform their Unit Convener or Inclusion and Welfare as soon as possible so the necessary arrangements can be made.

6c **Participation requirements**
Participation in laboratory and tutorial sessions is a compulsory condition of this unit. A student must participate in at least 80% of the laboratory and tutorial sessions in order to pass the unit. In the event that you cannot attend your assigned laboratory or tutorial session due to illness or unavoidable commitments and you wish to make up the session, contact the Unit Convener (email chem1b@canberra.edu.au) as soon as possible so that an alternative session can be arranged later in the week. You will need to provide a medical or counsellor's certificate or a letter from your employer to be permitted into an alternate session.

Participation in all lectures is also highly recommended. Your participation in both class and online activities will enhance your understanding of the unit content and therefore the quality of your assessment responses. Lack of participation may result in your inability to satisfactorily pass assessment items.

In all cases of absence, sickness or personal problems the onus is on you to ensure that the Unit Convener is informed. The minimum participation requirements must be met in order to pass the unit (regardless of supporting documentation). In the event of prolonged illness you should consult with the Unit Convener as soon as possible. If you feel that any problems are
interfering with your studies please let the Unit Convener know. We will do our best to help you get the most out of Chemistry 1b and University life in general. Furthermore, the University has extensive counselling services that are available free of charge to all students. These are found in the Health and Counselling Centre (Room: 1B124, phone: 6201 2351). The Centre offers help and advice in areas such as relaxation, financial and personal problems. The Study Skills unit (Room 1B26, phone: 6201 2361) offers help, advice and extra courses on effective study skills and general course guidance.

6d Withdrawal
If you are planning to withdraw please discuss with your unit convener. Please see Withdrawal of Units for further information on deadlines.

6e Required IT skills
It is the student’s responsibility to ensure that they have basic computer keyboard skills and access to a personal computer and the internet (to access Moodle and regularly check university email accounts for important announcements relating to this unit).

6f In-Unit Costs
There are relatively minor costs associated with this unit in the provision of appropriate protective safety equipment (laboratory coat and safety glasses), which are mandatory for all chemical laboratory classes. Laboratory coats and safety glasses are typically available from stores such as UC Union Shop (located on campus in the Hub) and/or work wear stores (such as Bunnings or Workin’ Gear (Fyshwick)).

Note: To calculate your unit fees see: How do I calculate my fees?. The online UC Co-op Textbook Search is available for purchasing text books.

6g Work placements, internships or practicums
Not applicable to this unit.

6h Additional information
Most information relevant to the unit will be posted on the Moodle website. Resources will be updated frequently throughout the semester.

Student Consultation
The unit Convener for this unit is A/Professor Dr Ashraf Ghanem (Room 3D51; Phone 6201 2089; Email: ashraf.ghanem@canberra.edu.au website: www.chiralitygroup.com). To arrange a consultation time, please email the unit convener to arrange an appointment. Some casual, part-time tutors will also be involved in some laboratory/tutorial classes and will only be available for consultation during the actual classes or by arrangement.

Research led education: This unit involves research-led education and/or work-integrated learning. There are active researchers delivering this unit who are able to engage students in deep and active learning and transmit to students their passion for the research they are carrying out.

Feedback: Students are able to monitor their performance in this unit by their responses to the Laboratory, Tutorial questions, the Moodle quizzes, as well as additional self-assessment questions.

Science Resource Centre (SRC): The Science Resource Centre (SRC) is a facility dedicated to enhancing the learning and university experience for science students with particular emphasis
on first year students. The SRC is set up with internet access, printing facilities and has a comfortable study area. Extra tutorials are run for several first year units. Location: 6B103. Contact Number: 6201 2298.

Awards
There are two awards given each year for Chemistry 1b:
John Wiley & Sons Award for Most Outstanding Student in Chemistry 1b
John Wiley & Sons Award for Most Improved Student in Chemistry 1b

These awards are kindly donated by John Wiley & Sons and consist of a certificate and a $100 Wiley Book Prize.

Provision of information to the group
Notifications through the Moodle Announcements Forum or the Moodle Discussion Forums are deemed to be made to the whole class. It is the responsibility of the student to ensure that they check for announcements on the Unit’s Moodle website (Moodle forum messages are also emailed to student email addresses only). Students should ensure they check their student email regularly. The Moodle discussion forums will be checked by staff regularly.

Use of student email account
The University Email policy states that “students wishing to contact the University via email regarding administrative or academic matters need to send the email from the University account for identity verification purposes”. Therefore all unit enquiries should be emailed using a student university email account. Students should contact servicedesk@canberra.edu.au if they have any issues accessing their university email account.

In all cases of absence, sickness or personal problems it is the student’s responsibility to ensure that the unit Convener is informed. The minimum participation requirement must be met in order to pass the unit (regardless of supporting documentation).

7: Student Feedback

All students enrolled in this unit will have an opportunity to provide anonymous feedback on the unit at the end of the Semester via the Unit Satisfaction Survey (USS) which you can access by logging into MyUC via the UC homepage: http://www.canberra.edu.au/home/. Your lecturer or tutor may also invite you to provide more detailed feedback on their teaching through an anonymous questionnaire.

As a result of student feedback, the following changes have recently been made to the unit:
1. The no of students in each lab session has been reduced and a new lab session was added to the list. Each demonstrator will have maximum of 20 students to supervise in the lab.

8: Authority of this Unit Outline

Any change to the information contained in Section 2 (Academic content), and Section 5 (Assessment) of this document, will only be made by the Unit Convener if the written agreement of the Program Director and a majority of students has been obtained; and if written advice of the change is then provided on the unit site in the learning management system. If this is not possible, written advice of the change must be then forwarded to each student enrolled in the unit at their registered term address. Any individual student who
believes him/herself to be disadvantaged by a change is encouraged to discuss the matter with the Unit Convener.

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