Description: Chemistry 2

<table>
<thead>
<tr>
<th>Subject</th>
<th>Cat-Nbr</th>
<th>Class</th>
<th>Term</th>
<th>Mode</th>
<th>Units</th>
<th>Campus</th>
</tr>
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<tbody>
<tr>
<td>CHE</td>
<td>2120</td>
<td>24350</td>
<td>2, 2003</td>
<td>ONC</td>
<td>1.00</td>
<td>TW MBA</td>
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Academic Group: FOSCI
Academic Org: FOS002
HECS Band: 2
ASCED Code: 010599

STAFFING
Examiner: Ray Marshall
Moderator: Tania van den Ancker

PRE-REQUISITES
Pre-requisite: CHE1110

OTHER-REQUISITES
Recommended Pre-requisite: CHE2202

RATIONALE
This course provides students with the basic principles and skills of physical, inorganic and organic chemistry as they relate to the study of Biology and Chemistry. The course builds upon the material covered in Chemistry 1 (CHE1110) and is essential for the further studies in Biology and Chemistry.

SYNOPSIS
This course addresses the important basic principles and concepts of physical, inorganic and organic chemistry. The course covers basic thermodynamics, reaction kinetics, equilibria, colligative properties, organic functional groups, IUPAC naming, basic stereochemistry, and simple reactions.

OBJECTIVES
On successful completion of this course students will be able to:
- apply the basic principles of thermodynamics, reaction rates and colligative properties;
- describe the chemistry of metallo-organic molecules;
- apply the basic principles of stereochemistry and chirality in organic chemistry;
• demonstrate an understanding of the organisation of organic functional groups;
• describe simple organic reactions and functional group interconversions;
• utilise appropriate laboratory techniques in basic organic, inorganic and physical chemistry.

TOPICS

Description | Weighting (%) 
--- | ---
1. Organic Chemistry - naming of simple organic compounds; stereochemistry and chirality and their implications; functional groups and their interconversions. | 40.00 |
2. Physical Chemistry - thermodynamics; reaction Rates/Kinetics; equilibria; colligative properties. Inorganic chemistry - metallo-organic compounds; coordination complexes; oxidation states; - naming and stereochemistry. | 40.00 |
3. Laboratory Practical classes will give students a practical understanding of the concepts within the lectures. At the conclusion of the practical, students will: - demonstrate an understanding of the need for laboratory safety and safe work habits; show mastery of basic laboratory skills; and have become familiar with the use of some common pieces of laboratory equipment. | 20.00 |

TEXT and MATERIALS required to be PURCHASED or ACCESSED:

Books can be ordered by fax or telephone. For costs and further details use the 'Book Search' facility at http://bookshop.usq.edu.au by entering the author or title of the text.


(Students only taking first year chemistry should purchase the Fundamentals of Organic Chemistry and the Study Guide and Solutions Manual for Fundamentals of Organic Chemistry texts. If students are doing higher level organic chemistry they should purchase Organic Chemistry and the Study Guide and Solutions Manual for Organic Chemistry texts as these texts also cover the higher level courses.)
REFERENCE MATERIALS

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.


STUDENT WORKLOAD REQUIREMENTS

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
</tr>
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<tbody>
<tr>
<td>Examinations</td>
<td>4</td>
</tr>
<tr>
<td>Laboratory or Practical Classes</td>
<td>24</td>
</tr>
<tr>
<td>Lectures</td>
<td>26</td>
</tr>
<tr>
<td>Private Study</td>
<td>70</td>
</tr>
<tr>
<td>Report Writing</td>
<td>30</td>
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<td>Tutorial</td>
<td>13</td>
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ASSESSMENT DETAILS

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks Out of</th>
<th>Wtg(%)</th>
<th>Required</th>
<th>Due Date</th>
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<tr>
<td>2HR RESTRICTED TEST TOPIC 1</td>
<td>40.00</td>
<td>40.00</td>
<td>Y</td>
<td>22 Jul 2003</td>
</tr>
<tr>
<td>LABORATORY REPORTS</td>
<td>20.00</td>
<td>20.00</td>
<td>Y</td>
<td>22 Jul 2003</td>
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<tr>
<td>2 HR RESTRICTED EXAM TOPIC 2</td>
<td>40.00</td>
<td>40.00</td>
<td>Y</td>
<td>END S2</td>
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NOTES:

- Lecturer will advise the date of the 2hr Restricted Test Topic 1 early in the Semester.
- Lecturer will advise due dates for Laboratory Reports.
- Examination dates will be available during the Semester. Please refer to the examination timetable when published.
IMPORTANT ASSESSMENT INFORMATION

1 Attendance requirements:
   It is the students' responsibility to attend and participate appropriately in all activities (such as lectures, tutorials, laboratories and practical work) scheduled for them, and to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration.

2 Requirements for students to complete each assessment item satisfactorily:
   To complete the practical component satisfactorily, students must submit all nominated practical reports for marking no later than one teaching week (normally 7 days) after the completion of the experimental work and obtain at least 50% of the marks available for each report submitted. To complete the examination satisfactorily, students must obtain at least 50% of the marks available for the examination.

3 Penalties for late submission of required work:
   If students submit assignments after the due date without prior approval then a penalty of 10% of the total marks gained by the student for the assignment will apply for each working day late.

4 Requirements for student to be awarded a passing grade in the course:
   To be assured of receiving a passing grade a student must submit all of the summative assessment items, achieve at least 50% in the examination and at least 50% for the laboratory reports.

5 Method used to combine assessment results to attain final grade:
   The final grades for students will be assigned on the basis of the weighted aggregate of the marks obtained for each of the summative assessment items in the course.

6 Examination information:
   In a Restricted Examination, candidates are allowed access to specific materials during the examination. The only materials that candidates may use in the restricted examination for this course are: writing materials (non-electronic and free from material which could give the student an unfair advantage in the examination); calculators which cannot hold textual information (students must indicate on their examination paper the make and model of any calculator(s) they use during the examination. With the Examiner's approval, candidates may, take an appropriate non-electronic translation dictionary (but not technical dictionaries) into the examination. This will be subject to perusal and, if it is found to contain annotations or markings that could give the candidate an unfair advantage, it may be removed from the candidate's possession until the appropriate disciplinary action is completed.

7 Examination period when Deferred/Supplementary examinations will be held:
   Any Supplementary work for this course must be submitted by the end of week 5 of the following semester. Any Deferred examinations for this course must occur at a time suitable to both the student and the course examiner but no later than the next semester's examination period.

8 University Regulations:
Students should read USQ Regulations 5.1 Definitions, 5.6. Assessment, and 5.10 Academic Misconduct for further information and to avoid actions which might contravene University Regulations. These regulations can be found at the URL http://www.usq.edu.au/SECARIAT/calendar/Part5/ or in the printed version of the current USQ Handbook.

ASSESSMENT NOTES

9 In order to attend laboratory classes, students must provide and wear appropriate personal protective equipment. This shall include a laboratory coat, closed in shoes, and safety glasses. Such equipment must be approved by supervising staff. Failure to provide and wear the appropriate safety equipment will result in students being excluded from classes.

10 The due date for an assignment is the date by which a student must despatch the assignment to the USQ. The onus is on the student to provide proof of the despatch date, if requested by the Examiner. Students must retain a copy of each item submitted for assessment. If requested by the Examiner, students will be required to provide a copy of assignments submitted for assessment purposes. Such copies should be despatched to USQ within 24 hours of receipt of a request being made. In accordance with University's Assignment Extension Policy (Regulation 5.6.1), the examiner of a course may grant an extension of the due date of an assignment in extenuating circumstances.