



Course Outline

Code: CHM202 Title: Organic Chemistry

School of:	Science & Engineering
Teaching Session:	Semester 2
Year:	2019
Course Coordinator:	Dr Peter Brooks Tel: (07) 5430 2828 Email: pbrooks@usc.edu.au
Course Moderator:	Dr Neil Tindale

Please go to the USC website for up to date information on the teaching sessions and campuses where this course is usually offered.

1. What is this course about?

1.1 Description

Organic Chemistry is the study of covalently bonded molecules with a carbon backbone. Organic molecules are the vast majority of compounds making up living systems. This includes DNA, RNA, carbohydrates, lipids, proteins drugs and poisons. This course introduces you to the structure and reactivity of organic molecules in sufficient detail to better understand biochemistry as well as predict reactivity and synthetic pathways. The practical component demonstrates hands on synthesis, purification and identification of organic compounds.

1.2 Course topics

The course covers a broad foundation in organic chemistry, including; covalent bonding, stereochemistry, reaction pathways, reaction of functional groups, synthetic strategies and Infrared spectroscopy.

2. What level is this course?

200 level Developing - Applying broad and/or deep knowledge and skills to new contexts. May require pre-requisites and introductory level knowledge/skills. Normally undertaken in the 2nd or 3rd year of an undergraduate program

3. Unit value

12 units

4. How does this course contribute to my learning?

Specific Learning Outcomes On successful completion of this course you should be able to:	Assessment Tasks You will be assessed on the learning outcome in task/s:	Graduate Qualities or Professional Standards mapping Completing these tasks successfully will contribute to you becoming:
Plan and conduct laboratory experiments	1. Laboratory component	Empowered.
Analyse and assign structure from Infrared spectra	1. Laboratory component	Empowered.
Describe, explain and apply organic chemistry theory including: bonding and reactivity in organic molecules	1. Laboratory component 2. Organic bonding and reactivity Exam 3. Final Exam	Knowledgeable.

5. Am I eligible to enrol in this course?

Refer to the [USC Glossary of terms](#) for definitions of “pre-requisites, co-requisites and anti-requisites”.

5.1 Enrolment restrictions

Nil

5.2 Pre-requisites

SCH105 Chemistry or SCL505 Chemistry

5.3 Co-requisites

Nil

5.4 Anti-requisites

CHM502 Organic Chemistry

5.5 Specific assumed prior knowledge and skills (where applicable)

Students should have a sound knowledge of general chemistry

6. How am I going to be assessed?

6.1 Grading scale

Standard – High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL)

6.2 Details of early feedback on progress

In week 4, your tutorial participation and progress on basic Organic bonding concepts will be informally assessed, and the opportunity given for student feedback.

6.3 Assessment tasks

Task No.	Assessment Tasks	Individual or Group	Weighting %	What is the duration/length?	When should I submit?	Where should I submit it?
1	Four laboratory reports	Individual	40%	Four times 800 words	One week after completing the practical	To the coordinator
2	Organic bonding and reactivity exam	Individual	20%	1 hour/750 words	Week 8 tutorial	In class
3	Final Exam	Individual	40%	2 hours/1500 words	Central examination period	Exam venue
			100%			

Assessment Task 1: Laboratory Component

Goal:	Laboratory work is a critical part of the skills and knowledge in this field. The laboratory component is designed to develop your advancing knowledge on planning and safely conducting organic experiments, and writing scientific reports
Product:	Four written reports, each averaging 800 words
Format:	Standard Scientific Report Format: Title, Abstract, Experimental Procedure, Discussion, References
Criteria	Demonstration of accurate organic theory and knowledge Accurate collection and analysis of experiment data Clear and concise scientific communication

Assessment Task 2: Organic bonding and reactivity exam

Goal:	This exam will focus on the application of organic bonding and reactivity
Product:	1 hour written exam
Format:	Individual written exam covering the first six weeks of lectures
Criteria	Correct answering of questions on organic bonding and reactivity concepts

Assessment Task 3: Final Exam

Goal:	Demonstrate and apply knowledge to organic chemistry problems
Product:	Written 2 hour formal exam
Format:	Individual examination during central exam period
Criteria	Correct answering of questions in organic bonding, reactivity and synthesis

7. What are the course activities?

7.1 Directed study hours

The directed study hours listed here are a portion of the workload for this course. A 12 unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Directed study hours may vary by location. Student workload is calculated at 12.5 learning hours per one unit.

Location: Specific Campus(es) or online:	Directed study hours for location:
USC Sunshine Coast	Lecture: 2-hr per week Tutorial: 1-hr per fortnight Practical: 3-hr per fortnight

7.2 Course content

Week / Module	What key concepts/content will I learn?
1	Molecular Bonding & Nomenclature: The Organic Language
2	Stereochemistry
3	Infrared Spectroscopy
4-5	Substitution and Elimination Reactions
6-7	Alkyl halides, Alcohols and Amines
8	Alkenes
9	Aromatics
10	Aldehydes and Ketones
11	Enolate Anions
12	Enolate Anions
13	Semester Review

Please note - course content is subject to variation.

8. What resources do I need to undertake this course?

Please note that course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Blackboard site. Please log in as soon as possible.

8.1 Prescribed text(s)

Please note that you need to have regular access to the resource(s) listed below as they are required:

Author	Year	Title	Publisher
Bruice, Paula Yurkanis	2017	Organic Chemistry	Pearson

8.2 Specific requirements

Safety glasses, laboratory coat and covered shoes must be brought to laboratory classes

9. Risk management

There is minimal health and safety risk in this course for most students. Students that suffer asthma should contact the course coordinator before enrolling.

It is your responsibility as a student to review course material, search online, discuss with lecturers and peers, and understand the health and safety risks associated with your specific course of study. It is also your responsibility to familiarise yourself with the University's general health and safety principles by reviewing the [online Health Safety and Wellbeing training module for students](#), and following the instructions of the University staff.

10. What administrative information is relevant to this course?

10.1 Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work

to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Blackboard, are electronically checked through SafeAssign. This software allows for text comparisons to be made between your submitted assessment item and all other work that SafeAssign has access to.

10.2 Assessment: Additional requirements

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

- The final mark is in the percentage range 47% to 49.4%
- The course is graded using the Standard Grading scale
- You have not failed an assessment task in the course due to academic misconduct

10.3 Assessment: Submission penalties

Late submission of assessment tasks will be penalised at the following maximum rate:

- 5% (of the assessment task's identified value) per day for the first two days from the date identified as the due date for the assessment task.
- 10% (of the assessment task's identified value) for the third day
- 20% (of the assessment task's identified value) for the fourth day and subsequent days up to and including seven days from the date identified as the due date for the assessment task.
- A result of zero is awarded for an assessment task submitted after seven days from the date identified as the due date for the assessment task.

Weekdays and weekends are included in the calculation of days late.

To request an extension, you must contact your Course Coordinator and supply the required documentation to negotiate an outcome.

10.4 Study help

In the first instance, you should contact your tutor, then the Course Coordinator. Additional assistance is provided to all students through Academic Skills Advisers. To book an appointment or find a drop-in session go to [Student Hub](#).

Contact Student Central for further assistance: +61 7 5430 2890 or studentcentral@usc.edu.au

10.5 Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Administration of Central Examinations
- Deferred Examinations
- Student Academic Misconduct
- Students with a Disability

Visit the USC website:

<http://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching>

10.6 General Enquiries

In person:

- **USC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **USC South Bank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **USC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **USC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- **USC Caboolture** - Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au