

CHM202 **Organic Chemistry**

School: School of Science, Technology and Engineering

2023 | Semester 2

UniSC Sunshine Coast
UniSC Moreton Bay**BLENDED
LEARNING**

Most of your course is on campus but you may be able to do some components of this course online.

Please go to unisc.edu.au 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. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Learning materials – 2x1hr of learning materials weekly.	2hrs	Week 1	13 times
Tutorial/Workshop 1 – On campus tutorials delivered fortnightly	1hr	Week 2	6 times
Laboratory 1 – On campus labs delivered fortnightly	3hrs	Week 1	7 times
Seminar – On campus seminar	1hr	Week 1	3 times

1.3. 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)

Building on and expanding the scope of introductory knowledge and skills, developing breadth or depth and applying knowledge and skills in a new context. May require pre-requisites where discipline specific introductory knowledge or skills is necessary. Normally, undertaken in the second or third full-time year of an undergraduate programs.

3. What is the unit value of this course?

12 units

4. How does this course contribute to my learning?

COURSE LEARNING OUTCOMES		GRADUATE QUALITIES
On successful completion of this course, you should be able to...		Completing these tasks successfully will contribute to you becoming...
1	Plan and conduct laboratory experiments	Empowered
2	Analyse and assign structure from Infrared spectra	Empowered
3	Describe, explain and apply organic chemistry theory including bonding and reactivity in organic molecules	Knowledgeable Empowered

5. Am I eligible to enrol in this course?

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

5.1. Pre-requisites

SCI105 or SCI505

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

CHM502

5.4. Specific assumed prior knowledge and skills (where applicable)

Students should have a sound knowledge of general chemistry

5.5. Microcredential Information

Not applicable

6. How am I going to be assessed?

6.1. Grading Scale

Standard Grading (GRD)

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

DELIVERY MODE	TASK NO.	ASSESSMENT PRODUCT	INDIVIDUAL OR GROUP	WEIGHTING %	WHAT IS THE DURATION / LENGTH?	WHEN SHOULD I SUBMIT?	WHERE SHOULD I SUBMIT IT?
All	1	Practical / Laboratory Skills	Individual	30%	Three reports, each report is 1000 words \pm 10%	Refer to Format	To Supervisor
All	2	Examination - not Centrally Scheduled	Individual	30%	1 hour	Week 8	In Class
All	3	Examination - Centrally Scheduled	Individual	40%	2 hours	Exam Period	Exam Venue

All - 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:	Practical / Laboratory Skills	
AUTHORSHIP STATEMENT:		
FORMAT:	Submission: either online or hard copy during the following lab session after completing the practical. Standard Scientific Report Format: Title, Abstract, Experimental Procedure, Discussion, References	
CRITERIA:	No.	Learning Outcome assessed
	1	Demonstration of accurate organic theory and knowledge 1
	2	Accurate collection and analysis of experiment data 2
	3	Clear and concise scientific communication 3
GENERIC SKILLS:	Communication, Collaboration, Problem solving	

All - Assessment Task 2: Organic bonding and reactivity exam

GOAL:	This exam will focus on the application of organic bonding and reactivity	
PRODUCT:	Examination - not Centrally Scheduled	
AUTHORSHIP STATEMENT:		
FORMAT:	Individual written exam covering the first six weeks of learning material	
CRITERIA:	No.	Learning Outcome assessed
	1	Criteria 3 Correct answering of questions on organic bonding and reactivity concepts
GENERIC SKILLS:	Problem solving, Organisation	

All - Assessment Task 3: Final Exam

GOAL:	Demonstrate and apply knowledge to organic chemistry problems	
PRODUCT:	Examination - Centrally Scheduled	
AUTHORSHIP STATEMENT:		
FORMAT:	Individual examination during central exam period	
CRITERIA:	No.	Learning Outcome assessed
	1	Correct answering of questions in organic bonding, reactivity and synthesis 3
GENERIC SKILLS:		

7. Directed study hours

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. Student workload is calculated at 12.5 learning hours per one unit.

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

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

8.1. Prescribed text(s) or course reader

You need regular access to the resource(s) below. Many texts are available as ebooks through the [Library](#) at no additional cost.

REQUIRED?	AUTHOR	YEAR	TITLE	EDITION	PUBLISHER
Required	Paula Yurkanis Bruice	2017	Organic Chemistry, Global Edition	8th Edition	Pearson

8.2. Specific requirements

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

9. How are risks managed in this course?

Risk assessments have been performed for all laboratory classes and a moderate level of health and safety risk exists. Moderate risks are those associated with laboratory work such as working with chemicals and hazardous substances. You will be required to undertake laboratory induction training and it is also your responsibility 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 and to familiarise yourself with the University's general health and safety principles by reviewing the [online induction training 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 Canvas, are electronically checked through Turnitin. This software allows for text comparisons to be made between your submitted assessment item and all other work to which Turnitin has access.

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 may be penalised at the following maximum rate (the rates are cumulative): - 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 to negotiate an outcome.

10.4. 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
- Central Examinations
- Deferred Examinations
- Student Conduct
- Students with a Disability

For more information, visit <https://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching>

10.5. Student Charter

UniSC is committed to excellence in teaching, research and engagement in an environment that is inclusive, inspiring, safe and respectful. The [Student Charter](#) sets out what students can expect from the University, and what in turn is expected of students, to achieve these outcomes.

10.6. General Enquiries

In person:

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

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au