



COURSE OUTLINE

CHM202 Organic Chemistry

Course Coordinator: Peter Brooks (pbrooks@usc.edu.au) **School:** School of Science, Technology and Engineering

2021 | Semester 2

USC Sunshine Coast
USC Moreton Bay

ON CAMPUS

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

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. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
ON CAMPUS			
Tutorial/Workshop 1 – 1 hour fortnightly	1hr	Week 2	6 times
Laboratory 1 – 3 hour fortnightly	3hrs	Week 1	7 times
Lecture	2hrs	Week 1	13 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 [USC 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

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	40%	Four times 800 words	Refer to Format	To Supervisor
All	2	Examination	Individual	20%	1 hour/750 words	Week 8	In Class
All	3	Examination - Centrally Scheduled	Individual	40%	2 hours/1500 words	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
FORMAT:	Submit: One week 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

All - Assessment Task 2: Organic bonding and reactivity exam

GOAL:	This exam will focus on the application of organic bonding and reactivity	
PRODUCT:	Examination	
FORMAT:	Individual written exam covering the first six weeks of lectures	
CRITERIA:	No.	Learning Outcome assessed
	1	Criteria Correct answering of questions on organic bonding and reactivity concepts ③

All - Assessment Task 3: Final Exam

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

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. Directed study hours may vary by location. 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 Blackboard site– Please log in as soon as possible.

8.1. Prescribed text(s) or course reader

Please note that you need to have regular access to the resource(s) listed below. Resources may be required or recommended.

REQUIRED?	AUTHOR	YEAR	TITLE	PUBLISHER
Required	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. 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 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 may 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 to negotiate an outcome.

10.4. Study help

For help with course-specific advice, for example what information to include in your assessment, you should first contact your tutor, then your course coordinator, if needed.

If you require additional assistance, the Learning Advisers are trained professionals who are ready to help you develop a wide range of academic skills. Visit the [Learning Advisers](#) web page for more information, or contact Student Central for further assistance: +61 7 5430 2890 or studentcentral@usc.edu.au.

10.5. Wellbeing Services

Student Wellbeing provide free and confidential counselling on a wide range of personal, academic, social and psychological matters, to foster positive mental health and wellbeing for your academic success.

To book a confidential appointment go to [Student Hub](#), email studentwellbeing@usc.edu.au or call 07 5430 1226.

10.6. AccessAbility Services

Ability Advisers ensure equal access to all aspects of university life. If your studies are affected by a disability, learning disorder mental health issue, injury or illness, or you are a primary carer for someone with a disability or who is considered frail and aged, [AccessAbility Services](#) can provide access to appropriate reasonable adjustments and practical advice about the support and facilities available to you throughout the University.

To book a confidential appointment go to [Student Hub](#), email AccessAbility@usc.edu.au or call 07 5430 2890.

10.7. 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>

10.8. General Enquiries

In person:

- **USC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **USC Moreton Bay** - Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie
- **USC SouthBank** - 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