



UNSW Course Outline

CHEM2999 Special Project in Chemistry - 2024

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General Course Information

Course Code : CHEM2999

Year : 2024

Term : Term 1

Teaching Period : T1

Is a multi-term course? : No

Faculty : Faculty of Science

Academic Unit : School of Chemistry

Delivery Mode : In Person

Delivery Format : Standard

Delivery Location : Kensington

Campus : Sydney

Study Level : Undergraduate

Units of Credit : 6

Useful Links

[Handbook Class Timetable](#)

Course Details & Outcomes

Course Description

This course is designed for students at Level 2 hoping to specialise in chemistry. It provides an early introduction to the university research environment through undertaking an authentic short research project under the direction of a School of Chemistry academic. It takes advantage of

UNSW's world-class researchers and research facilities. Students engage directly with academics and their research group, becoming involved with the regular activities such as group meetings, while learning important research and transferable graduate skills prized throughout academia, industry and business.

Course Aims

The aim of this course is to provide students with an authentic research experience similar in nature to a research Honours project (though smaller in scope)

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Conduct safe and ethical research, ensuring all necessary laboratory procedures are followed and that appropriate experimental records are kept.
CLO2 : Investigate and solve qualitative and quantitative problems in chemical sciences by applying relevant research methods with direction.
CLO3 : Access and collate peer reviewed literature using information technologies.
CLO4 : Communicate research results in the written and graphical format aimed at a scientifically literate non-expert audience.
CLO5 : Identify the skills acquired during the research experience and relate these to employability and graduate attributes

Course Learning Outcomes	Assessment Item
CLO1 : Conduct safe and ethical research, ensuring all necessary laboratory procedures are followed and that appropriate experimental records are kept.	<ul style="list-style-type: none">• Research Notebook• Activities Logbook
CLO2 : Investigate and solve qualitative and quantitative problems in chemical sciences by applying relevant research methods with direction.	<ul style="list-style-type: none">• Report• Research Notebook• Activities Logbook
CLO3 : Access and collate peer reviewed literature using information technologies.	<ul style="list-style-type: none">• Infographic• Report
CLO4 : Communicate research results in the written and graphical format aimed at a scientifically literate non-expert audience.	<ul style="list-style-type: none">• Infographic• Report
CLO5 : Identify the skills acquired during the research experience and relate these to employability and graduate attributes	<ul style="list-style-type: none">• Activities Logbook

Learning and Teaching Technologies

Moodle - Learning Management System

Learning and Teaching in this course

The dominant learning mode for this course is regular approximately 7 hrs per week engagement with an authentic research project within one of UNSW's Chemistry research groups. This project should be determined through consultation between the primary supervisor and the student. This project will give students the opportunity to experience various aspects of the day-to-day life of a research student, expose them to the motivations, goals and key methodologies of the research group as well as teach them valuable research skills and transferable skills.

Students will also participate in a one-hour compulsory group meeting each week. This meeting will provide a venue for reflection by students on their project, research in general and the realities of being a scientist.

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Research Notebook Assessment Format: Individual	25%	Due Date: See Moodle
Report Assessment Format: Individual	40%	Due Date: See Moodle
Infographic Assessment Format: Individual	10%	Due Date: See Moodle
Activities Logbook Assessment Format: Individual	25%	Due Date: See Moodle

Assessment Details

Research Notebook

Assessment Overview

During your project you will document your research activities, data and analyses in a research notebook.

This notebook should be discussed with your research supervisor over the early weeks, then submitted in Week 5 for initial feedback before a final submission in Week 10.

Feedback is provided by assessing the work against a rubric as well as written comments.

Course Learning Outcomes

- CLO1 : Conduct safe and ethical research, ensuring all necessary laboratory procedures are followed and that appropriate experimental records are kept.
- CLO2 : Investigate and solve qualitative and quantitative problems in chemical sciences by applying relevant research methods with direction.

Detailed Assessment Description

The notebook will be assessed as satisfactory or unsatisfactory based on inclusion of all the required elements and evidence of an adequate amount of work.

Report

Assessment Overview

You will write a scientific report in the style of a short research thesis. This will typically include sections: Abstract, Literature Review and/or Introduction, Project Aims, Methodology, Results, Discussion, Conclusions, References.

The report will be submitted in during the exam period and must satisfactorily address all the below criteria. For any areas which are judged unsatisfactory, students will be given one opportunity to prepare an improved report (to be submitted by the end of the exam period), otherwise an unsatisfactory grade will be awarded for this task.

The key criteria are:

- Did the abstract adequately summarise the project describing the accomplishments and significance?
- Did the introduction (literature review) detail the literature and explain the rationale for the project?
- Did the research project explain what the goal was, and then what was accomplished?
- Are the techniques/methodology used in the project described and justified?

Feedback is provided by assessing the work against a rubric as well as written comments.

Course Learning Outcomes

- CLO2 : Investigate and solve qualitative and quantitative problems in chemical sciences by applying relevant research methods with direction.
- CLO3 : Access and collate peer reviewed literature using information technologies.
- CLO4 : Communicate research results in the written and graphical format aimed at a scientifically literate non-expert audience.

Infographic

Assessment Overview

You will create an infographic that focuses on explaining the context of your research at a level aimed at first-year undergraduates. This assessment will be due during the exam period.

To receive a satisfactory grade for this task, your infographic must satisfactorily explore the project context by presenting a scientifically sound infographic without substantial typographic or grammatical mistakes.

Feedback is provided by assessing the work against a rubric as well as written comments.

Course Learning Outcomes

- CLO3 : Access and collate peer reviewed literature using information technologies.
- CLO4 : Communicate research results in the written and graphical format aimed at a scientifically literate non-expert audience.

Activities Logbook

Assessment Overview

You will prepare a spreadsheet summarising the research activities you undertook and the skills you acquired during your research project. This document will be a log to evidence your completion of the research tasks agreed upon with your supervisor, and provide you with an opportunity to reflect on how your new skills relate to employability and graduate attributes.

This spreadsheet should be discussed with your research supervisor over the early weeks, then submitted in Week 5 for initial feedback before a final submission in Week 10.

Feedback is provided by assessing the work against a rubric as well as written comments.

Course Learning Outcomes

- CLO1 : Conduct safe and ethical research, ensuring all necessary laboratory procedures are followed and that appropriate experimental records are kept.
- CLO2 : Investigate and solve qualitative and quantitative problems in chemical sciences by applying relevant research methods with direction.
- CLO5 : Identify the skills acquired during the research experience and relate these to employability and graduate attributes

General Assessment Information

Grading Basis

Satisfactory

Course Schedule

Attendance Requirements

Please note that lecture recordings are not available for this course. Students are strongly encouraged to attend all classes and contact the Course Authority to make alternative arrangements for classes missed.

General Schedule Information

This course consists of 1 hour per week class contact hours. You are expected to take an additional 7 hours per week of non-class contact hours to complete research work, including attending research group meetings where possible.

Course Resources

Prescribed Resources

Research training and safety information: <https://sites.google.com/view/unswsocresearchtraining/home>

Specific project reading and resources should be discussed with the project supervisor.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Laura McKernish				By appointment	Yes	Yes
Lecturer	Neeraj Sharma				By appointment	No	No

Other Useful Information

Academic Information

Upon your enrolment at UNSW, you share responsibility with us for maintaining a safe, harmonious and tolerant University environment.

You are required to:

- Comply with the University's conditions of enrolment.
- Act responsibly, ethically, safely and with integrity.

- Observe standards of equity and respect in dealing with every member of the UNSW community.
- Engage in lawful behaviour.
- Use and care for University resources in a responsible and appropriate manner.
- Maintain the University's reputation and good standing.

For more information, visit the [UNSW Student Code of Conduct Website](#).

Academic Honesty and Plagiarism

Referencing is a way of acknowledging the sources of information that you use to research your assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism.

Further information about referencing styles can be located at <https://student.unsw.edu.au/referencing>

Academic integrity is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits: honesty, trust, fairness, respect, responsibility and courage. At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.

Further information about academic integrity, plagiarism and the use of AI in assessments can be located at:

- The [Current Students site](#),
- The [ELISE training site](#), and
- The [Use of AI for assessments](#) site.

The Student Conduct and Integrity Unit provides further resources to assist you to understand your conduct obligations as a student: <https://student.unsw.edu.au/conduct>

Submission of Assessment Tasks

Penalty for Late Submissions

UNSW has a standard late submission penalty of:

- 5% per day,
- for all assessments where a penalty applies,
- capped at five days (120 hours) from the assessment deadline, after which a student cannot submit an assessment, and
- no permitted variation.

Any variations to the above will be explicitly stated in the Course Outline for a given course or assessment task.

Students are expected to manage their time to meet deadlines and to request extensions as early as possible before the deadline.

Special Consideration

If circumstances prevent you from attending/completing an assessment task, you must officially apply for special consideration, usually within 3 days of the sitting date/due date. You can apply by logging onto myUNSW and following the link in the My Student Profile Tab. Medical documentation or other documentation explaining your absence must be submitted with your application. Once your application has been assessed, you will be contacted via your student email address to be advised of the official outcome and any actions that need to be taken from there. For more information about special consideration, please visit: <https://student.unsw.edu.au/special-consideration>

Important note: UNSW has a “fit to sit/submit” rule, which means that if you sit an exam or submit a piece of assessment, you are declaring yourself fit to do so and cannot later apply for Special Consideration. This is to ensure that if you feel unwell or are faced with significant circumstances beyond your control that affect your ability to study, you do not sit an examination or submit an assessment that does not reflect your best performance. Instead, you should apply for Special Consideration as soon as you realise you are not well enough or are otherwise unable to sit or submit an assessment.

Faculty-specific Information

Additional support for students

- [The Current Students Gateway](#)
- [Student Support](#)
- [Academic Skills and Support](#)
- [Student Wellbeing, Health and Safety](#)
- [Equitable Learning Services](#)
- [UNSW IT Service Centre](#)
- Science EDI Student [Initiatives](#), [Offerings](#) and [Guidelines](#)

School-specific Information

UNSW Changes to Special Consideration: Short Extension

The School of Chemistry has carefully reviewed all of its assessments to determine whether they are suitable for automatic short extensions as set out by the UNSW Short Extension Policy. The current deadline structures for all assessment tasks in the School of Chemistry already accommodate the possibility of unexpected circumstances that may lead students to require additional time for submission. **The School of Chemistry has opted out of the UNSW Short Extension provision for all its courses**, and we have already integrated flexibility into our assessment deadlines. This decision is subject to revision in response to the introduction of new course offerings. All students may still apply for Special Consideration for any assessment via the usual procedures.

School Contact Information

Level 1, Dalton Building (F12)

W: www.chemistry.unsw.edu.au

Also see: **Contacts and Support** section of the course Moodle page (where applicable)