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## **CHEM324: Chemical Analysis and Inference**

### **Subject Outline**

6 credit points

### **Subject Information**

**Autumn, 2026**, Wollongong  
On Campus

**On-Campus Delivery** This subject is delivered in-person and includes on-campus or other location-based learning activities that cannot be undertaken by students studying Online/Distance. Students unable to attend campus or any other nominated physical delivery location should not enrol in this subject

Subjects with a delivery mode of On Campus and/or Flexible with International Student enrolments will be delivered in accordance with the ESOS National Code. That is, online learning experiences (such as lectures, tuition, and resources) will be supplementary to in-person learning experiences such as scheduled classes and/or scheduled contact hours.

*UOW may need to modify teaching locations, teaching delivery, and assessment delivery at short notice in response to unforeseen circumstances such as health or environmental factors.*

For up-to-date information please refer to your subject's Moodle site.

### **The Faculty of Science, Medicine and Health**

The Faculty of Science, Medicine and Health offers a range of undergraduate and postgraduate programs designed to meet the needs of a diverse student population. We carry out world-leading research which is strongly aligned with our teaching program

As a student of our faculty, you will be actively engaged in learning with extensive clinical, laboratory and/or field work experiences, use of advanced educational technologies and opportunities for enriching work experience. More information about the Faculty of Science, Medicine and Health and our School is available on our web pages: <https://www.uow.edu.au/science-medicine-health/>

Within many of our courses, attending a workplace experience or clinical placement is an exciting part of your course program. Whilst integral to your learning, these health-related placements also let you experience what it's like to work as a professional in real-life workplace settings. More information about requirements for Health Placements is available on our webpage: <https://www.uow.edu.au/student/health-placements/>

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<b>Consultation Times</b>	Email for an appointment

### Teaching Staff Additional Information

The final list of teaching staff will be provided on Moodle

### Expectations of Students

UOW values are intellectual openness, excellence and dedication, empowerment and academic freedom, mutual respect and diversity, recognition and performance. We will provide a safe, equitable and orderly environment for the University community, and expect each member of our community to behave responsibly and ethically ([Student Conduct Rules](#)).

We expect that students demonstrate these values and professional behaviour, both face to face and online, making genuine efforts to complete their studies successfully, arriving on time to class, taking part constructively in class discussions and activities, demonstrating appropriate professional and ethical conduct in all communication with UOW staff and community members, and submitting assignments on time (or completing a request for Academic Consideration in advance if needed).

## **Guiding Communication Principles for Students**

**Moodle** Announcements will be the primary platform for communication of general information to students

- Students should ensure they regularly check the main announcements forum at the top of each subject's Moodle site.
- It is the student's responsibility to check all subject Moodle sites regularly for information and notifications.

**SOLS messages** will be used for all central communication relating to the following:

- Administrative matters relating to student enrolment
- Critical information relating to course or subject, e.g. Changes to assignments, policy updates, class cancellations or changes
- Timetable information
- Security and emergency information
- Students are encouraged to check SOLS messages daily as these messages are often of high priority

SOLS and Moodle announcements can NOT be responded to.

### **Appropriate Online Behaviour**

The University is committed to providing a safe, respectful, equitable and orderly environment for the University community, and expects each member of that community to behave responsibly and ethically. Students must comply with the University's [Student Conduct Rules](#) and related policies including the [IT Acceptable Use Policy](#) and [Bullying Prevention Policy](#), whether undertaking their studies face-to-face, online.

For more information on appropriate communication and etiquette in the online environment please refer to the guide [Online and Email Etiquette](#).

## **Copyright**

**Commonwealth of Australia**

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Hardcopies of this document are considered uncontrolled please refer to your Moodle site for the latest version.

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# Section A: General Information

## Learning Outcomes

### Subject Learning Outcomes

On successful completion of this subject, students will be able to:

1. Identify appropriate experimental techniques from the scientific literature and formulate an experimental strategy to perform the chemical and/or instrumentation analysis experiment(s)
2. Implement the experimental strategy and demonstrate an understanding of the results of that analysis
3. Evaluate results of all observations in the context of the original scientific question
4. Report the outcome of the project and self-development using multiple media
5. Demonstrate the ability to work in a team environment, and participate in the assessment of peers

### Subject Description

This subject is a project-based capstone. Students will be provided with (i) training and experience in skills and technologies that are at the cutting edge of contemporary chemical research, and (ii) complementary guidance and training in the development of professional skills applicable to entering the workforce. This subject involves both workshops and laboratory experiences performed within both teaching and research labs at the University of Wollongong. Results from student projects will be submitted using a variety of media including electronic lab notebooks, scientific reports and electronic posters. Students will also develop an ePortfolio over the session that provides evidence of skill development throughout the semester.

### Course Handbook

Information about subject pre-requisites, co-requisites and restrictions as well as course completion requirements and Course Learning Outcomes can be found in the [Course Handbook](#).

## Subject Details: Practical Activities, eLearning, Readings and Materials

### Subject eLearning

The University uses the eLearning system Moodle to support all coursework subjects. The subject Moodle site can be accessed via your SOLS page.

### Safety Guidelines

The rules below are general rules that are required when participating in labs, practicals, fieldwork or simulated fieldwork activities. Before commencing these activities, you are to ensure that you understand specific procedures and policy related to safety.

- All first-year students undertaking Chemistry (CHEM101/102/104/105) must complete the Moodle WHS Induction (see the subject Moodle site for more details below)
- Before commencing lab/practical/fieldwork activity you are to ensure that you understand specific procedures and policy related to safety.
- You may need to review a Risk Assessment and complete a Participant Acknowledgement form before commencing any fieldwork/practical work. These materials will be made available by the supervisor/Subject Coordinator.
- You must inform the Subject Coordinator of any medical conditions which may impact upon your ability to participate in these activities before commencing the practical.
- All Reasonable Adjustment cases (Access Plans) must be discussed with the Subject Coordinator prior to commencing the activity.
- Participation in the lab/practical/field/simulation activities may be denied to students who do not abide by these, and other conditions which may be specified by the Subject Coordinator.

- Never use any equipment or attempt any experiment without checking the safety implications with your laboratory supervisor or experienced delegated laboratory worker
- Undergraduate students are not permitted to work after hours unless there is appropriate approval and supervision.
- For subjects including field trips, students may be required to contribute to costs associated with the provision of field trips that form part of the course of study.

### **APPLIED Work Integrated Learning**

This subject has 'Applied WIL'. Students in this subject will experience both coursework and a work-related opportunity that typically includes interaction and feedback with industry professionals.

### **Additional Subject Details**

This subject aligns with the **United Nations Sustainable Development Goals (SDGs)** and forms part of the **University of Wollongong's SDG Portfolio**. Through this subject, students develop the knowledge and practical skills required to understand and address real-world chemical, environmental, and analytical challenges that underpin sustainable development.

By engaging with authentic laboratory practices, data interpretation, and critical scientific thinking, students are encouraged to become **informed global citizens** who are proactive, responsible, and equipped to contribute to the achievement of the Global Goals through their future studies and professional careers. The subject emphasises the role of chemistry in improving environmental stewardship, supporting sustainable industry, and advancing evidence-based decision-making for a better world.

### **Using Generative Artificial Intelligence (GenAI)**

UOW is committed to embracing GenAI as a tool to enhance learning and development of important digital and work-readiness skills.

Your subject coordinator will provide specific guidance on the use of GenAI in your assessment tasks via your Subject Outline and/or your subject Moodle site. If gen AI use is permitted, it should be used thoughtfully, critically, and in ways that support your own learning.

Guidance on appropriate use of AI in assessments, including how to [acknowledge GenAI](#) can be found on the [Using Generative Artificial Intelligence in Assessment website](#)

You are responsible for all work you submit, and ethical use of GenAI is an important part of maintaining academic integrity. Misuse or unauthorised use may breach the [Academic Integrity Policy](#).

### **Major Text(s)**

Links to required and recommended resources are provided on **Moodle**.

- **Standard Methods for the Examination of Water and Wastewater**

Students may also find the following texts useful for background reading and reference:

- Daniel C. Harris, *Quantitative Chemical Analysis* (7th Edition, 2007, ISBN: 0716744643)
- K. A. Rubinson & J. F. Rubinson, *Contemporary Instrumental Analysis* (Prentice Hall, 2000, ISBN: 0-13-790726-5)

If there is a textbook available for purchase, you can find the details at University Bookshop <https://unishop.uow.edu.au/>

### **Recommended Readings and Other Resources**

See Moodle site

This is not an exhaustive list of references. Students should also use the library catalogue and databases to locate additional resources.

## Additional Materials

Must have:  
Laboratory coat  
Safety glasses  
Closed shoes

## Lectures, Tutorials and Attendance Requirements

### Lecture Times \*

*UOW may need to modify teaching locations, teaching delivery, and assessment delivery at short notice in response to unforeseen circumstances such as health or environmental factors.*

For up-to-date information please refer to your subject's Moodle site.

Up to date timetable and delivery information is located at  
<http://www.uow.edu.au/student/timetables/index.html>

You can access your personal timetable by logging into SOLS and selecting 'My Timetable'

### Lecture Program \*

Week	Commencing	Topics Covered	Readings
	20 Apr 2026	<b>Mid-Session Recess</b>	
	08 Jun 2026	<b>Study Recess</b>	
	13 Jun 2026	<b>Examinations</b>	
	20 Jun 2026	<b>Examinations</b>	

\* The above times and program may be subject to change. Students will be notified of any change via SOLS.

### Additional Lecture Comments

Week	Week Commencing	Notes
1	02 Mar 2026	Subject overview; employability and career development workshop
2	09 Mar 2026	Careers panel; introduction to Project 1
3	16 Mar 2026	Project 1 – laboratory work
4	23 Mar 2026	Project 1 – laboratory work
5	30 Mar 2026	Project 1 – laboratory work
6	06 Apr 2026	Project 1 finalisation; report discussion
7	13 Apr 2026	Introduction to Project 2; project commencement
–	20 Apr 2026	Mid-Session Recess
8	27 Apr 2026	Project 2 – laboratory work

9	04 May 2026	Project 2 – laboratory work
10	11 May 2026	Project 2 finalisation
11	18 May 2026	ePoster presentations
12	25 May 2026	Project 2 write-up support (in-class)
13	01 Jun 2026	ePortfolio peer review
–	08 Jun 2026	Study Recess
–	15 Jun 2026	Examinations
–	22 Jun 2026	Examinations

CHEM324 is an on-campus, laboratory-based subject that emphasises hands-on experimental work and collaborative learning. Students work in small groups to design and conduct chemical analyses, critically interpret their results, and relate these findings back to the underlying scientific questions.

The subject builds on prior knowledge and practical experience, with a strong focus on data quality, analytical reasoning, and scientific inference.

There are no formal lectures in this subject, and therefore no lectures are recorded. All scheduled class time is devoted to laboratory work, project discussions, and professional skills development.

### **Recording of Teaching and Learning Activities**

The University of Wollongong supports the recording of UOW educational content as a supplemental study tool, to provide students with equity of access, and as a technology-enriched learning strategy to enhance the student experience.

If you make your own recording of a lecture, class, seminar, workshop or any other educational session provided as part of your course of study you can only do so with the explicit permission of the lecturer and those people who are also being recorded.

You may only use educational content recorded through the delivery of subject or course content, whether they are your own or recorded by the university, for your own educational purposes. Recordings cannot be altered, shared or published on another platform, without permission of the University, and to do so may contravene the University's Copyright Policy, Privacy Policy, Intellectual Property Policy, IT Acceptable Use Policy and Student Conduct Rules. Unauthorised sharing of recordings may also involve a breach of law under the Copyright Act 1969.

Most lectures in this subject will be recorded, when they are scheduled in venues that are equipped with lecture recording technology and made available via the subject Moodle site within 48 hours.

### **Your Privacy - Recording of Teaching and Learning**

In accordance with the Student Privacy & Disclosure Statement, and Lecture Recording Procedures when undertaking our normal teaching and learning activities, the University may collect your personal information. This collection may occur incidentally during the recording of lectures in equipped venues (i.e. when your identity can be ascertained by your image, voice or opinion), or via the delivery of online content therefore the University further advises students that:

- Lecture recordings are made available to students, university staff, and affiliates, securely via the Learning Platform;

- Recordings are made available only for the purpose for which they were recorded, for example, as a supplemental study tool or to support equity and access to educational resources;

If you have any concerns about the use or accuracy of your personal information collected in a lecture recording, you may approach your Subject Coordinator to discuss your particular circumstances.

The University is committed to ensuring your privacy is protected. If you have a concern about how your personal information is being used or managed, please refer to the University's Privacy Policy or consult our Privacy webpage <https://www.uow.edu.au/privacy/>

## **Recent Improvements to Subject**

The Faculty of Science, Medicine and Health is committed to continual improvement in teaching and learning and takes into consideration student feedback from many sources including, direct student feedback to tutors and lecturers and responses to the Subject and Course Evaluation Surveys. Feedback is also used to inform comprehensive reviews of subjects and courses.

## **Recent Changes**

In 2024, CHEM324 was revised to introduce two separate laboratory-based projects and to strengthen its focus on employability and career development skills.

## **Extraordinary Changes to the Subject Outline**

In extraordinary circumstances the provisions stipulated in this Subject Outline may require amendment after the Subject Outline has been distributed. All students enrolled in the subject must be notified and have the opportunity to provide feedback in relation to the amendment, where practicable, prior to the amendment being finalised.

## **Learning Analytics**

Learning Analytics data (such as student engagement with Moodle, access to recorded lectures, University Library usage, task marks, and use of SOLS) may be used by the Subject Coordinator and your faculty's Head of Students to assist in analysing student engagement, and to identify and recommend support for students identified who may be in need of assistance. If you have questions about the kinds of data the University uses, how we collect it, and how we protect your privacy in the use of this data, please refer to <https://www.uow.edu.au/privacy/>

## Section B: Assessment

### Assessment Summary

Assessment Item	Form of Assessment	%
Assessment 1	Quiz	5%
Assessment 2	Lab/Prac/Simulation	10%
Assessment 3	Report	15%
Assessment 4	Presentation	15%
Assessment 5	Professional Task	15%
Assessment 6	Report	40%
	<b>TOTAL MARKS</b>	100%

**Please note:** Copies of student work may be retained by the University in order to facilitate quality assurance of assessment processes.

### Assessment 1: Quiz - Lab Safety Quiz

<b>Weighting</b>	5%
<b>Assessment Due</b>	02 Mar 2026 (In workshop in Session Week 1) Final submission time: 2:30pm
<b>Type of Collaboration</b>	Individual assessment
<b>Style and format</b>	Moodle quiz
<b>Generative AI use</b>	<b>No.</b> Generative AI tools are <b>not permitted</b> for this assessment task. The Lab Safety Quiz is designed to assess each student's <b>individual understanding of laboratory safety procedures, risk management, and safe working practices</b> that are essential for participation in practical classes. Allowing the use of generative AI would undermine the purpose of the task and would not provide an accurate measure of a student's readiness to work safely in the laboratory environment. The quiz must therefore be completed <b>independently</b> , without the assistance of generative AI, to ensure compliance with laboratory safety requirements and University policies.
<b>Assessment submission</b>	Online via Moodle
<b>Detailed information</b>	This assessment consists of an online quiz designed to test students' understanding of <b>laboratory safety</b> , including <b>risk assessment processes, types of laboratory risks, and relevant legislation and institutional safety requirements</b> . Students are required to evaluate potential hazards and identify appropriate <b>risk controls</b> to manage those hazards effectively. The purpose of this quiz is to ensure that students are adequately prepared for subsequent laboratory work. A <b>pass mark is required</b> in order for students to commence <b>laboratory-based activities</b> later in the subject. The quiz will be completed via <b>Moodle</b> during the <b>Week 1 workshop timeslot</b> .

## Assessment 2: Lab/Prac/Simulation - Student lab book

<b>Marking Criteria</b>	The marking criteria via a rubric will be made available on your eLearning site
<b>Length</b>	You will need to decide the length and composition of your notebook, and this will be discussed during project 1.
<b>Weighting</b>	10%
<b>Assessment Due</b>	12 Apr 2026 (Sunday in Session Week 6) Final submission time: 11:59pm
<b>Type of Collaboration</b>	Individual assessment
<b>Style and format</b>	<p>A <b>PDF export of the OneNote Class Notebook</b> must be submitted (instructions will be provided in <b>Week 1</b>). Students must ensure that the submitted document is <b>well organised, clearly labelled, and easy to follow</b>, with content presented in a clear and accessible format.</p> <p><b>Submission</b></p> <p><b>Electronic submission only.</b> Submission instructions and the submission link will be provided via <b>Moodle</b>.</p>
<b>Generative AI use</b>	<p><b>Yes.</b> Students may use Generative AI tools <b>in a limited and appropriate manner</b> to support the preparation of their laboratory book. Acceptable uses include assistance with <b>improving clarity and structure, redrafting text for readability, and correcting grammar and expression.</b></p> <p>Generative AI <b>must not</b> be used to generate experimental data, fabricate observations, perform data analysis, interpret results, or write scientific conclusions. All experimental work, data recording, calculations, interpretations, and reflections must be the student's <b>own original work</b> and must accurately reflect the laboratory activities undertaken.</p> <p>Students are responsible for the accuracy, integrity, and scientific validity of all content submitted. Use of Generative AI that replaces core learning activities or misrepresents student understanding constitutes a breach of academic integrity.</p>
<b>Assessment submission</b>	Online via Moodle
<b>Assessment return</b>	Within 3 weeks from due date as per UOW Policy
<b>Detailed information</b>	<p>For <b>Project 1</b>, students are required to maintain a <b>laboratory notebook</b> in which all information relevant to the experimental work and subsequent data analysis is recorded. This includes, but is not limited to, experimental procedures, observations, raw data, calculations, and notes relevant to data interpretation.</p> <p>The laboratory notebook will be <b>reviewed during scheduled laboratory classes</b>, and assessment will be guided by a <b>marking rubric provided on Moodle</b>. While the laboratory notebook is <b>formally assessed for Project 1 only</b>, students are expected to continue using the same notebook for <b>Project 2</b> to ensure continuity and good laboratory practice.</p>

### Assessment 3: Report - Project 1 report

<b>Marking Criteria</b>	The marking criteria via a rubric will be made available on your eLearning site
<b>Length</b>	max 10 pages
<b>Weighting</b>	15%
<b>Assessment Due</b>	12 Apr 2026 (Sunday in Session Week 6) Final submission time: 11:59pm
<b>Type of Collaboration</b>	Individual assessment
<b>Style and format</b>	Following completion of <b>Project 1</b> , students will communicate their findings by preparing the <b>Results</b> and <b>Discussion</b> sections of a scientific paper. The report should follow appropriate scientific conventions, including clear presentation of data, figures, and tables, and a structured, evidence-based discussion. Resources and guidance on writing scientific papers are available on the <b>subject Moodle site</b> .
<b>Generative AI use</b>	<b>Yes.</b> Students may use Generative AI tools <b>in a limited and appropriate manner</b> when preparing the Project 1 report. Acceptable uses include support with <b>structuring the report, improving clarity and academic writing, redrafting text, and checking grammar and expression</b> . Generative AI <b>must not</b> be used to generate or fabricate data, perform calculations or data analysis, interpret results, develop scientific arguments, or write conclusions. All data analysis, figures, interpretations, and discussion must be based on the group's experimental results and represent the students' <b>own understanding and work</b> . Students remain fully responsible for the accuracy, integrity, and originality of the submitted report. Inappropriate use of Generative AI that replaces core analytical or interpretive tasks, or misrepresents student contribution, constitutes a breach of academic integrity under University policy.
<b>Assessment submission</b>	Online via Moodle  This assessment task has been set up to be checked by Turnitin, a tool for checking if it has unreferenced content. You can submit your assessment task to Turnitin prior to the due date and Turnitin will give you an originality report. You can then make any changes that may be required and re-submit your final version by the due date.
<b>Assessment return</b>	Within 3 weeks from due date as per UOW Policy
<b>Detailed information</b>	This report will be written in the form of the <b>Results</b> and <b>Discussion</b> sections of a scientific paper. It will focus on the experimental work and results obtained during <b>Project 1</b> , in which different components of a sample are analysed using a range of analytical techniques. The <b>Discussion</b> should critically evaluate the results, with particular emphasis on the <b>relative strengths and limitations of the different analytical methods</b> used, especially in cases where the same component has been measured using more than one technique. As part of the assessment, students will also be provided with data generated by other student groups, which should be used to further compare and discuss the performance, reliability, and suitability of different chemical analysis techniques.

#### Assessment 4: Presentation - ePoster presentation

<b>Marking Criteria</b>	The marking criteria via a rubric will be made available on your eLearning site
<b>Length</b>	One slide electronic poster
<b>Weighting</b>	15%
<b>Assessment Due</b>	17 May 2026 (Sunday in Session Week 10) Final submission time: 11:55pm
<b>Type of Collaboration</b>	Group work
<b>Style and format</b>	A <b>one-slide electronic poster (ePoster)</b> for on-screen presentation during the workshop. Students may use applications such as <b>PowerPoint</b> or <b>Canva</b> to prepare their ePoster.
<b>Generative AI use</b>	<p><b>Yes.</b></p> <p>Students may use Generative AI tools <b>in a limited and appropriate manner</b> when preparing the ePoster. Acceptable uses include assistance with <b>improving written clarity, refining layout or structure, shortening text for conciseness, and redrafting captions or headings</b> for readability.</p> <p>Generative AI <b>must not</b> be used to generate or fabricate data, figures, results, or interpretations, nor to develop scientific conclusions or key messages. All data, visuals, analyses, and scientific content presented in the ePoster must be derived from the students' own experimental work and reflect their <b>own understanding</b>.</p> <p>Students are responsible for the accuracy, integrity, and originality of all content included in the ePoster. Use of Generative AI that replaces substantive scientific thinking or misrepresents student contribution constitutes a breach of academic integrity under University policy.</p>
<b>Assessment submission</b>	Online via Moodle
<b>Assessment return</b>	Within 3 weeks from due date as per UOW Policy
<b>Detailed information</b>	<p>This assessment consists of an <b>electronic poster (ePoster)</b> presented as part of a <b>conference-style poster session</b>. The ePoster is a <b>collaborative assessment</b>, completed by each small research group participating in <b>Project 2</b>.</p> <p>The poster will describe the research undertaken during Project 2, including the <b>methods used, results obtained, and key findings</b>. It will be presented to both <b>classmates and the teaching team</b>, including project supervisors. Example posters and supporting resources will be provided on <b>Moodle</b>.</p> <p>The ePoster must be presented <b>as a team</b>, and part of the assessment will be based on students' <b>responses to questions</b> about the presented research, demonstrating understanding of the experimental work and results.</p>

## Assessment 5: Professional Task - ePortfolio

<b>Marking Criteria</b>	The marking criteria via a rubric, will be made available on your eLearning site
<b>Length</b>	This assessment is submitted as an <b>electronic website</b> . Word limits are <b>indicative</b> and should be adjusted appropriately if incorporating <b>videos or other multimedia content</b> . Students should remain mindful of the intended audience and aim for <b>succinct, critical reflection</b> supported by relevant evidence presented through artefacts. A <b>total word limit of approximately 1500 words</b> is expected (excluding citations), equivalent to <b>around 250 words per section/tab/theme</b> , including the personalised statement.
<b>Weighting</b>	15%
<b>Assessment Due</b>	31 May 2026 (Sunday in Session Week 12) Final submission time: 11:55pm
<b>Type of Collaboration</b>	Individual assessment
<b>Style and format</b>	This assessment takes the form of an <b>electronic portfolio (ePortfolio)</b> designed to develop <b>digital communication skills</b> and showcase students' <b>knowledge and skill development</b> throughout the subject. The portfolio is structured into <b>multiple sections</b> , each reflecting a different capability developed during the subject (e.g. chemical analysis, teamwork, networking skills, and job readiness). The total length of the ePortfolio is <b>up to 1500 words</b> , with a <b>maximum of 250 words per section</b> . Reflections should be <b>concise, critical, and evidence-based</b> , incorporating artefacts collected throughout the subject to support claims of learning and skill development. Students may choose the <b>digital platform</b> used to present their ePortfolio (e.g. a website or similar format). When selecting a platform, students must ensure the portfolio is <b>easily accessible to staff and peers</b> and consider whether ongoing access will be available after subject completion should they wish to continue developing it. Suggested platforms and guidance will be provided in <b>Week 1</b> .
<b>Generative AI use</b>	<b>Yes.</b> Students may use Generative AI tools <b>in a limited and appropriate manner</b> when preparing their ePortfolio. Acceptable uses include assistance with <b>structuring the portfolio, improving clarity and academic writing, redrafting reflections for readability, and checking grammar and expression</b> . Generative AI <b>must not</b> be used to generate or fabricate laboratory data, results, analyses, or scientific interpretations, nor to produce reflective content that does not genuinely represent the student's own learning, experiences, and development. All experimental work, reflections, evidence of skills, and personal insights must be the student's <b>own original work</b> . Students are responsible for the accuracy, integrity, and authenticity of all content submitted in the ePortfolio. Use of Generative AI that replaces genuine reflection, misrepresents learning, or undermines the purpose of the portfolio constitutes a breach of academic integrity under University policy.
<b>Assessment submission</b>	Online via Moodle
<b>Assessment return</b>	Within 3 weeks from due date as per UOW Policy
<b>Detailed information</b>	Throughout the semester, students will focus on developing <b>research and employability skills</b> , as outlined in <b>Week 1</b> . The ePortfolio is a <b>critical self-reflection</b> on this learning journey, requiring students to reflect on their development <b>before and during CHEM324</b> (and other relevant subjects or experiences where appropriate).

	<p>Students are encouraged to support their reflections with <b>evidence</b>, which may include photographs, short videos, figures, graphs, or other data visualisation formats that demonstrate skill and knowledge development. The ePortfolio will be <b>peer assessed</b>, and examples of similar portfolios will be provided to students via <b>Moodle</b>.</p> <p>The ePortfolio must begin with a <b>personalised statement</b>, which may be presented as text, audio, or video. This should be followed by <b>up to five themed pages or tabs</b>, each focused on critical reflection of specific aspects of <b>research capability and employability skill development</b>.</p>
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### Assessment 6: Report - Project 2 report

<b>Marking Criteria</b>	The marking criteria via a rubric will be made available on your eLearning site
<b>Length</b>	Maximum <b>30 pages</b> , including the <b>table of contents, figures, references, and appendices</b> . Text must be formatted with <b>at least 1.5 line spacing and 12-point Times New Roman font (or equivalent)</b> .
<b>Weighting</b>	40%
<b>Assessment Due</b>	07 Jun 2026 (Sunday in Session Week 13) Final submission time: 11:59pm
<b>Type of Collaboration</b>	Individual assessment
<b>Style and format</b>	You will prepare a <b>complete scientific report</b> , written in the style of a <b>journal article</b> . The report is an <b>individual submission</b> . While discussion and collaboration with other members of the project group are encouraged during the project, the submitted report must be <b>your own original work</b> .
<b>Generative AI use</b>	<b>Yes.</b> Students may use Generative AI tools <b>in a limited and appropriate manner</b> when preparing the Project 2 report. Acceptable uses include assistance with <b>structuring the report, improving clarity and academic expression, redrafting text, and checking grammar and readability</b> . Generative AI <b>must not</b> be used to generate or fabricate data, perform calculations or statistical analyses, interpret analytical results, or write scientific conclusions. All data processing, figures, interpretations, and discussion must be based on the students' experimental results and reflect their <b>own scientific understanding</b> . Students remain fully responsible for the accuracy, integrity, and originality of the submitted report. Any use of Generative AI that replaces core analytical, interpretive, or decision-making components of the assessment constitutes a breach of academic integrity under University policy.
<b>Assessment submission</b>	Online via Moodle  This assessment task has been set up to be checked by Turnitin, a tool for checking if it has unreferenced content. You can submit your assessment task to Turnitin prior to the due date and Turnitin will give you an originality report. You can then make any changes that may be required and re-submit your final version by the due date.
<b>Assessment return</b>	Within 3 weeks from due date as per UOW Policy
<b>Detailed information</b>	This assessment consists of an <b>individual written report</b> based on the work undertaken in <b>Project 2</b> , presented in the format of a <b>complete scientific paper</b> , including an <b>introduction, methods, results, discussion, conclusions, and references</b> . Details of the required format will be discussed in class, and examples of similar reports will be provided on <b>Moodle</b> .

	<p>Students are expected to <b>incorporate relevant feedback</b> received from the <b>Project 1 report</b> to demonstrate improvement in scientific writing, data presentation, and interpretation.</p> <p>While the experimental work for Project 2 is conducted <b>collaboratively within small project groups</b>, the submitted report must be the student's <b>own original work</b>, reflecting their individual understanding, analysis, and interpretation of the project outcomes.</p>
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## Minimum Requirements to Pass this Subject

### Minimum Requirements for a Pass in this Subject:

To receive a clear pass in this subject, a **total mark of 50% or more** must be achieved. In addition, failure to meet any of the **minimum performance requirements** is grounds for awarding a **Technical Fail (TF)** in the subject, even where the total marks accumulated are greater than 50%.

The minimum performance requirements for this subject are:

- **Submission of all required assessment items.**

All assessment tasks must be submitted by the specified deadlines. Failure to submit any assessment item, without an approved application for Academic Consideration, may result in a Technical Fail (TF) for the subject.

Applications for Academic Consideration must be submitted via SOLS, with appropriate supporting documentation (e.g. medical certificate), to Student Central as soon as practicable. Further information about applying for Academic Consideration is available on the Student Central webpage:

<http://www.uow.edu.au/student/central/academicconsideration/index.html>

### Hurdle Assessment

Subjects may include a hurdle assessment. A hurdle assessment is an assessment that requires a minimum level of performance as a condition for passing the subject. Examples include, achievement of a pass grade or above in a skills-based assessment or final examination. Hurdle assessments are applied to subjects to ensure students:

1. meet learning outcomes
2. demonstrate you can complete a task safely and/or meet professional standards.

For more on hurdle assessments see the Assessment and Feedback Policy [Section 8: Hurdle Assessments \(50-51-52\)](#).

Failure to meet a hurdle assessment requirement may constitute grounds for the award of a Technical Fail (TF) grade in this subject.

Should this subject contain a hurdle assessment, it will be stated under the specific assessment in Section B: Assessments.

### UOW Grade Descriptors

The UOW Grade Descriptors are general statements that communicate what our grades represent, in terms of standards of performance, and provide a frame of reference to ensure that assessment practice across the University is appropriate, consistent and fair. Grade Descriptors are expressed in general terms so that they are applicable to a broad range of disciplines. Grade Descriptors are available here

<https://www.uow.edu.au/student/exams/results/>. For more information on the UOW grade descriptors refer to the Teaching and Assessment: Assessment and Feedback Policy: [Teaching and Assessment: Assessment and Feedback Policy](#)

## Assessment Learning Outcome Matrix

Learning Outcomes	Measures - Assessment weighting					
	Lab Safety Quiz	Student lab book	Project 1 report	ePoster presentation	ePortfolio	Project 2 report
	(5%)	(10%)	(15%)	(15%)	(15%)	(40%)
Identify appropriate experimental techniques from the scientific literature and formulate an experimental strategy to perform the chemical and/or instrumentation analysis experiment(s)		✓	✓		✓	✓
Implement the experimental strategy and demonstrate an understanding of the results of that analysis			✓			✓
Evaluate results of all observations in the context of the original scientific question	✓		✓	✓	✓	✓
Report the outcome of the project and self-development using multiple media		✓	✓	✓	✓	✓
Demonstrate the ability to work in a team environment, and participate in the assessment of peers				✓	✓	✓

### Submission, Retention and Collection of Written Assessment

Assessed work must be handed in by the date and time listed under each assessment task. All assessment tasks must represent the enrolled student's own ORIGINAL work and must not have been previously submitted for assessment in any formal course of study.

#### Extensions

Students requesting an extension of time to submit an assessment task, deferred exam or exemption of a compulsory attendance requirement, must apply using Academic Consideration through SOLS. Students must apply before, or on the assessment/s due date and where evidence is required, students must provide evidence no later than three working days after the assessable item's due date for their request to be considered. **For information on the Academic Consideration Policy, eligibility requirements and how to apply, see:** <https://www.uow.edu.au/student/admin/academic-consideration/>

#### Late Submission of Assessment Tasks and Penalties

Assessed work must be submitted in by the date and time given. If an assessment is submitted late, it will be marked in the normal way, and a penalty will then be applied.

In the absence of an approved request for Academic Consideration in the form of an extension, assessment tasks must be submitted in line with the assessment instructions.

- An assessment task that is submitted late will receive a penalty of 5% of the total possible marks for each 24-hour period, or part thereof, that it is late.
- Work submitted after seven calendar days will not be marked and will be given a mark of 0.
- No assessment task can be handed in for a mark once the assessment task has been returned to students.
- Penalties accrue on each day that the assessment task is late, including Saturday, Sunday and public holidays

Note: Assessments must still be submitted to meet minimum performance requirements even though no mark is to be awarded.

### **Collection**

Students will be notified when they can collect or view their marked assessment. In accordance with University Policy marked assessments will usually only be held for 21 days after the declaration of marks for that assessment.

### **Retention**

The university may retain copies of student work in order to facilitate quality assurance of assessment processes, in support of the continuous improvement of assessment design, assessment marking and for the review of the subject. The University retains records of students' academic work in accordance with the University Records Management Policy and the State Records Act 1988 and uses these records in accordance with the University Privacy Policy and the Privacy and Personal Information Protection Act 1998.

### **Scaling**

Marks awarded for any assessment task or part of any assessment task, including an examination may be subject to scaling at the end of the session. Marks will be scaled only when unpredicted circumstances occur and in order to ensure fairness of marking across groups of students. The method of scaling will depend on the type of scaling required by the circumstances. When scaling is deemed necessary, it will follow a detailed consideration by the Unit Assessment Committee and/or the Faculty Assessment Committee of the marks of the group of students concerned. Scaling will not affect any individual student's rank order within their cohort. For more information please refer to [Finalisation of Student Results Policy](#) for details.

### **Supplementary Assessment**

Supplementary assessment may be offered to students whose performance in this subject is close to that required to pass the subject and are otherwise identified as meriting an offer of a supplementary assessment. For information about eligibility criteria and the form and timing of supplementary assessments see the [Supplementary Assessment Procedure](#)

### **Review and Appeal of Academic Decisions**

A student may request an explanation of a mark for an assessment task or a final grade for a subject consistent with the student's right to appropriate and useful feedback on their performance in an assessment task. A student may also seek further explanation for other academic decisions such as Academic Consideration, Supplementary Assessment or Credit for Prior Learning. If a student is not satisfied with the explanation, or have further concerns, they may have grounds for a formal review. For further information refer to [Review and Appeal of Academic Decisions Policy](#)

### **Assessment Quality Cycle**

The UOW Assessment Quality Cycle provides a level of assurance that assessment practices across the University are appropriate, consistent and fair. Quality assurance activities are undertaken to support the continuous improvement of assessment and promote good practices in relation to assessment design, marking and review of the subject prior to subsequent delivery.

### **Academic Integrity**

The University's Academic Integrity Policy, faculty handbook and subject guides clearly set out the University's expectation that students submit only their own original work for assessment and avoid plagiarising the work of others or cheating. Re-using any of your own work (either in part or in full) which you have submitted

previously for assessment is not permitted without appropriate acknowledgement. Plagiarism can be detected and has led to students being expelled from the University.

The use by students of any website that provides access to essays or other assessment items (sometimes marketed as 'resources'), is extremely unwise. Students who provide an assessment item (or provide access to an assessment item) to others, either directly or indirectly (for example by uploading an assessment item to a website) are considered by the university to be intentionally or recklessly helping other students to cheat. Uploading an assessment task, subject outline or other course materials without express permission of the University is considered academic misconduct and students place themselves at risk of being expelled from the University.

Students should visit the following University website and become familiar with the University's policy on plagiarism [Academic Integrity Policy](#)

## **Referencing**

The Author-Date (Harvard) referencing system should, unless otherwise specified for a particular assessment (check Details of Assessment Tasks), be utilised. A summary of the Harvard system can be accessed on the Library website at: <http://uow.libguides.com/refcite>

# Section C: General Advice for Students - Policies and Procedures

## Student Services and Support

There are a range of services available to students that are provided free of charge. A good place to get to know services that may be of use to you is the [Get Started @ UOW](#) or search for "Get Started @ UOW". Services available include:

Service	Link to information about the service
Aboriginal & Torres Strait Islander	<a href="https://www.uow.edu.au/about/services/woolyungah-indigenous-centre/about-us/">https://www.uow.edu.au/about/services/woolyungah-indigenous-centre/about-us/</a>
Careers advice	<a href="https://www.uow.edu.au/student/careers/">https://www.uow.edu.au/student/careers/</a>
Counselling	<a href="https://www.uow.edu.au/student/support-services/counselling/">https://www.uow.edu.au/student/support-services/counselling/</a>
Student Accessibility and Inclusion (SAI)	<a href="https://www.uow.edu.au/student/support-services/sai/">https://www.uow.edu.au/student/support-services/sai/</a>
Information Tech.	<a href="https://www.uow.edu.au/its/index.html?ssSourceSiteId=getstarted">https://www.uow.edu.au/its/index.html?ssSourceSiteId=getstarted</a>
Study Skills	<a href="https://www.uow.edu.au/student/support-services/academic-skills/">https://www.uow.edu.au/student/support-services/academic-skills/</a>

## Student Support Coordinator (SSC)

If you have a temporary or ongoing issue or a problem that is affecting your study, including issues that are related to belonging to an equity group, then the Student Support Coordinators may be able to help. There are Student Support Coordinators available to assist students who are studying at all UOW Campuses and in all UOW Faculties. Contact details can be found on the UOW website: <https://www.uow.edu.au/student/support-services/coordinators/>

## Student Advocacy Service

The Student Advocacy Service (SAS) is free, confidential and independent service for all UOW students. The SAS provides advocacy and referral for a range of academic, procedural and administrative issues. For more information visit: <https://www.uow.edu.au/student/support-services/advocacy/>

## AskUOW

AskUOW is your primary administrative and information contact during your studies.

Our purpose is to ensure students have access to the information they need, at the time they need it. We can help with a wide range of enquiries, including key topics such as:

- Applying for [academic consideration](#)
- Fees and scholarships
- Official documentation and student letter requests
- Student forms such as course transfer and leave of absence applications
- Student ID card issuance and replacement
- Subject enrolment
- Transport concession cards and Opal cards
- Updating personal details

Get instant answers 24/7 online using [AskUOW](#). Log in with your UOW username and password.

For further support contact [askuow@uow.edu.au](mailto:askuow@uow.edu.au) or call on 1300 275 869 (1300 ASK UOW) or +61 2 4221 3927.

## Library Services

Save yourself time and enhance your studies: connect with information specialists and resources anytime, anywhere.

- For Library support connect with [Live Chat](#) or [contact the Library](#).
- For self-help see [Frequently Asked Questions](#) or browse [Library guides](#) to find information, databases and skills tutorials.
- [Research consultations](#) are available to UOW Postgraduate, Honours and Deans Scholar students.

## Academic Integrity Policy

Academic integrity involves upholding ethical standards in all aspects of academic work, including learning, teaching and research. It involves acting with the principles of honesty, fairness, trust and responsibility and requires respect for knowledge and its development. The Policy can be found at:

<https://policies.uow.edu.au/document/view-current.php?id=26>

## Code of Practice - Research

This Code mandates the current policy and best practice relating to procedures for responsible research. The Code can be found at: <https://policies.uow.edu.au/document/view-current.php?id=11>

## Honours Policy

This policy sets out the responsibilities of all parties involved in managing students undertaking Honours Programs. The Code can be found at: <https://policies.uow.edu.au/document/view-current.php?id=36>

## The Code of Practice - Work Integrated Learning (Professional Experience)

The Code of Practice - Work Integrated Learning (Professional Experience) sets out what is expected from students, the University and Host Organisations in providing work integrated learning professional experience programs. It applies to professional experience programs that form the whole or part of a subject or course offered at the University. The Code assists in promoting a productive work integrated learning experience for students and in promoting relevant UOW Work Integrated Learning Design Principles.

<https://policies.uow.edu.au/document/view-current.php?id=12>

## Copyright Policy

The purpose of this Policy is to outline responsibilities and procedures regarding the use of third party copyright material, with the objectives of reducing staff and UOW exposure to the risks associated with the use of third party copyright material, assisting staff to make full legal use of the materials at their disposal by clearly identifying responsibilities and promoting copyright compliance. The Policy can be found at:

<https://policies.uow.edu.au/document/view-current.php?id=135>

## Course Progress Policy

The Course Progress Policy establishes the requirements, definitions and procedures to be used in determining the standards of acceptable course progress. The Policy can be found at:

<https://policies.uow.edu.au/document/view-current.php?id=30>

## Examination Rules and Procedures

The UOW rules and procedures outline exam conditions, student conduct in exams, and the procedures for exam management. Further information can be found here: <https://www.uow.edu.au/student/exams/>

## **Ethical Objection by Students to the Use of Animal and Animal Products in Coursework Subjects**

This policy provides a framework for recognition of and responses to students' ethical or religious objection to animal use in coursework subjects at the University of Wollongong. For the purpose of this policy, animal use includes killing of animals in experimental work, dissection of animals that are already dead, use of animal tissues, use of animal-derived products (such as sera). These uses are relevant to teaching and assessment. Further information about this policy can be found here: <https://policies.uow.edu.au/document/view-current.php?id=154>

## **Coursework Rules**

The Coursework Rules (hereafter the Rules) govern the admission, enrolment, progression through, and qualification for a coursework award offered by the University. Further information can be found here: <https://policies.uow.edu.au/document/view-current.php?id=4>

## **Human Research Ethics**

The Human Research Ethics Committee protects the welfare and rights of the participants in research activities. Further information can be found here: <https://www.uow.edu.au/research-and-innovation/researcher-support/ethics/human-ethics/>

## **Inclusive Language Guidelines**

UOW endorses a policy of non-discriminatory language practice in all academic and administrative activities of the University. Further information is available from: <https://policies.uow.edu.au/document/view-current.php?id=239>

## **Intellectual Property Policy**

UOW's IP Intellectual Property Policy provides guidance on the approach taken to Intellectual Property (IP), including its ownership, protection and exploitation. Further information about the management of IP is available at <https://policies.uow.edu.au/document/view-current.php?id=146>

## **Review and Appeal of Academic Decisions Policy**

UOW aims to provide a transparent and consistent process for resolving a student concern about an academic decision that has affected their academic progress, including a mark or grade. Further information is available at: <https://policies.uow.edu.au/document/view-current.php?id=40>

## **Student Academic Consideration Policy**

The purpose of the Student Academic Consideration Policy is to enable student requests for academic consideration for assessable components of a subject to be evaluated in a fair, reasonable, timely and consistent manner throughout the University. **For information on the Policy, eligibility and how to apply see:** <https://www.uow.edu.au/student/admin/academic-consideration/>

## **The Student Charter - Your Rights and Responsibilities**

The Student Charter is based on principles that guide all members of the University and that promote responsible partnerships within and beyond the University community. <https://www.uow.edu.au/student/charter/>

## **Student Assignment of Intellectual Property (IP) Policy**

This policy applies to all Students (under-graduate and post-graduate) of the University of Wollongong (UOW). It may also apply to other persons by agreement. This policy sets out the approach taken by UOW in relation to

Student assignment of intellectual property. Further information about this policy can be found here: <https://policies.uow.edu.au/document/view-current.php?id=146>

### **Student Conduct Rules**

These Rules outline the required conduct of students of UOW, and direct staff and students to University Rules, standards, codes, policies, guidelines, procedures and other requirements which specify acceptable and unacceptable student conduct, and the management of alleged student misconduct. <https://policies.uow.edu.au/document/view-current.php?id=6>

### **Teaching and Assessment: Assessment and Feedback Policy**

The purpose of this Policy is to set out the University of Wollongong's approach to effective learning, teaching and assessment, including the principles and minimum standards underlying teaching and assessment practice. The Policy can be found at: <https://policies.uow.edu.au/document/view-current.php?id=38>

### **Teaching and Assessment: Code of Practice - Teaching**

This Code is a key document in implementing the University's Teaching and Assessment Policy and sets out the specific responsibilities of parties affected in relation to learning, teaching and assessment, as well as procedures for teaching staff. The Code can be found at: <https://policies.uow.edu.au/document/view-current.php?id=9>

### **Teaching and Assessment: Subject Delivery Policy**

This Policy sets out specific requirements in relation to the delivery of Subjects. The policy can be found at: <https://policies.uow.edu.au/document/view-current.php?id=39>

### **Workplace Health & Safety Policy**

The Workplace Health and Safety (WHS) unit at UOW aims to provide structures, system and support to ensure the health, safety and welfare of all at the campus. Further information is available from: <https://policies.uow.edu.au/document/view-current.php?id=177>