# Faculty of Science, Medicine and Health School of Chemistry and Molecular Bioscience



# CHEM324: Chemical Analysis and Inference

# **Subject Outline**

6 credit points

# **Subject Information**

**Autumn, 2024**, 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 change teaching locations, teaching delivery and/or assessment delivery at short notice to ensure the safety and well-being of students and staff in response to the COVID-19 pandemic or other public health requirements.

# 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 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: <a href="https://www.uow.edu.au/science-medicine-health/">https://www.uow.edu.au/science-medicine-health/</a>

# **Teaching Staff**

Teaching Role	Name	Telephone	Email	Room	<b>Consultation Times</b>
Coordinator	Assoc Professor Shane Ellis	+61 2 4221 5748	sellis@uow.edu.au	42.214	Tuesday 13:30 - 14:30 (to be confirmed) Wednesday 13:30 - 14:30 (to be confirmed)
Lecturer	Dr. Jody Moller		jodym@uow.edu.au		Email for an appointment
Lecturer	Dr. Alex Mason		alexanderm@uow.edu.au		Email for an appointment
Lecturer	Assoc Professor Glennys O'Brien	+61 2 4221 3072	gobrien@uow.edu.au	18.112	Email for an appointment
Lecturer	Assoc. Prof. Shane Ellis	+6142215748	sellis@uow.edu.au	42.214	Email for an appointment
Tutor	Mrs Catherine Lancaster		cathyl@uow.edu.au		Email for an appointment
Tutor	Mr Travis Naylor		naylort@uow.edu.au		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 (UOW Student Conduct Rules <a href="https://documents.uow.edu.au/about/policy/learning/index.html">https://documents.uow.edu.au/about/policy/learning/index.html</a>).

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).

# **Communication and eLearning Etiquette**

Guidelines on the use of email to contact teaching staff, mobile phone use in class and information on the university guide to eLearning 'Netiquette' can be found at <a href="https://www.uow.edu.au/student/learningcoop/software/emailetiquette/index.html">https://www.uow.edu.au/student/learningcoop/software/emailetiquette/index.html</a>

## **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. Information distributed via a Moodle Announcement MAY not be duplicated on any other forum on the 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.

#### **Email**

Communication to UOW staff by students should only be via a UOW email account

Remember to use the same principles when communicating online as you would face-to-face. Be clear and respectful and communicate with the same consideration you would expect from others.

#### **Related Policies**

- Online and email etiquette <a href="https://tr.uow.edu.au/uow/file/976ffde2-b892-42cf-b20b-5c7a65bc08cc/1/Overview%20of%20Online%20and%20Email%20Etiquette.pdf">https://tr.uow.edu.au/uow/file/976ffde2-b892-42cf-b20b-5c7a65bc08cc/1/Overview%20of%20Online%20and%20Email%20Etiquette.pdf</a>
- Using UOWmail https://www.uow.edu.au/student/learning-co-op/technology-and-software/uowmail/
- Inclusive language guideline https://documents.uow.edu.au/about/policy/students/UOW140611.html
- The Student Charter <a href="https://www.uow.edu.au/student/charter/">https://www.uow.edu.au/student/charter/</a>

#### **Cyber Bullying**

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 <u>Student Conduct Rules</u> and related policies including the <u>IT Acceptable Use Policy</u> and <u>Bullying Prevention Policy</u>, 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 <u>Online and Email Etiquette</u> or at <u>https://www.uow.edu.au/student/learning-co-op/technology-and-software/email-etiquette/.</u>

#### **Related Policies**

Using UOWmail https://www.uow.edu.au/student/learning-co-op/technology-and-software/uowmail/

Inclusive language guideline <a href="https://documents.uow.edu.au/about/policy/students/UOW140611.html">https://documents.uow.edu.au/about/policy/students/UOW140611.html</a>

# **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 <a href="https://www.uow.edu.au/handbook/index.html">https://www.uow.edu.au/handbook/index.html</a>.

# 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 or practical 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 details below)
- Before commencing any activity you are to ensure that you understand specific procedures and policy related to the lab in which you work and safety in general.
- You may need to review a Risk Assessment and complete a Participant Acknowledgement form before commencing any experiments/practical work. These materials will be made available by the lab 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.

# **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**

https://www.uow.edu.au/united-nations-sustainable-development-goals/sdg-subjects-and-courses/
This subject aligns with the United Nations Sustainable Development Goals (SDGs) and is part of UOW's SDG
Portfolio which aims to ensure that our students are well informed global citizens that can continue to contribute
to realising sustainable development through their studies and careers by being proactive, responsible and
educated in relation to how realising the Global Goals will better the world.

# Major Text(s)

see Moodle for links to

Standard Methods for the Examination of Water and Waste Water

Students may find the CHEM 214 text useful; Daniel Harris, "Quantitative Chemical Analysis" (7th Edition, ISBN: 0716744643, 2007).

Also useful; Rubinson, K A and Rubinson, J F, "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 <a href="https://unishop.uow.edu.au/">https://unishop.uow.edu.au/</a>

#### **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 Hard cover bound Laboratory Notebook.

# Lectures, Tutorials and Attendance Requirements

## **Lecture Times \***

UOW may need to change teaching locations, teaching delivery and/or assessment delivery at short notice to ensure the safety and well-being of students and staff in response to the COVID-19 pandemic or other public health requirements.

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

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

#### Lecture Program \*

Week	Commencing	Topics Covered
	15 Apr 2024	Mid-Session Recess
	03 Jun 2024	Study Recess
	08 Jun 2024	Examinations
	15 Jun 2024	Examinations

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

#### **Additional Lecture Comments**

CHEM324 is an on-campus, laboratory-based subject that requires students to work in small groups to plan and execute chemical experiments and interpret the results. This subject builds heavily upon your knowledge and experience to perform experimental analyses and to place the results of those analyses in the context of the original sample and the original chemical questions posed.

There are no lectures to be recorded.

# **Lecture Recording**

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 - Lecture Recording**

In accordance with the Student Privacy & Disclosure Statement, 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 on the university's IT Platforms and via the subject Moodle eLearning site;
- 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;
- Recordings are stored securely for up to four years

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 <a href="https://www.uow.edu.au/privacy/">https://www.uow.edu.au/privacy/</a>

# **Tutorial/Seminar/Workshop Times**

The Faculty uses the SMP Online Tutorial System and tutorial times and locations can be found at <a href="https://www.uow.edu.au/student/timetables/index.html">https://www.uow.edu.au/student/timetables/index.html</a>. Please note that tutorial times on the timetable are provisional and may change.

# Tutorial/Seminar/Workshop Program

Where the restrictions require temporary adjustments for delivery and tutorial/seminar/workshop arrangements, any necessary changes will be advised and provided by your Subject Coordinator. Please check Subject Moodle site regularly

Week	Week Commencing	Topics Covered
1	26 Feb 2024	Overview of subject Health and Safety Employability and Career development workshop
2	04 Mar 2024	Careers panel with UOW alumni Project 1 lab safety, introduction and start
3	11 Mar 2024	Conduct project 1
4	18 Mar 2024	Conduct project 1
5	25 Mar 2024	Finalise project 1
6	01 Apr 2024	Easter holiday
7	08 Apr 2024	Project 2 introduction and start
	15 Apr 2024	Mid-Session Recess
8	22 Apr 2024	Carry out project 2
9	29 Apr 2024	Carry out project 2
10	06 May 2024	Finalise project 2
11	13 May 2024	Poster presentation
12	20 May 2024	Project 2 write up support drop in session
13	27 May 2024	Professional reflective task – peer review
	03 Jun 2024	Study Recess
	08 Jun 2024	Examinations
	15 Jun 2024	Examinations

The above program may be subject to change.

# **Recent Improvements to Subject**

The Faculty of Science, Medicine and Health is committed to continual improvement in teaching and learning. In assessing teaching and learning practices in a subject, the Faculty takes into consideration student feedback from many sources. These sources include direct student feedback to tutors and lecturers, feedback through Science, Medicine and Health Central, responses to the Subject and Course Evaluation Surveys. These important student responses are used to make ongoing changes to subjects and courses. This information is also used to inform systemic comprehensive reviews of subjects and courses.

#### Recent Changes:

In 2024 the subject has been updated to include two separate lab-based projects and additional career development aspects

# **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 to students who may be at risk of failure. 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 <a href="https://www.uow.edu.au/about/privacy/index.html">https://www.uow.edu.au/about/privacy/index.html</a>

# **Section B: Assessment**

# **Assessment Summary**

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

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

A formative assessment activity (with written or verbal feedback) will be conducted before census date - please see <u>UOW Key Dates.</u>

# **Assessment 1: Quiz - Quiz**

Weighting	5%
Assessment Due	26 Feb 2024 (In workshop in Session Week 1) Final submission time: 2:30pm
Type of Collaboration	Individual assessment
Style and format	Moodle quiz
Assessment submission	Online via Moodle
Detailed information	A quiz asking questions about risk assessments, risk types, and legislation which asks students to evaluate and identify controls to manage risk. This is to prepare students for the later lab work.  The quiz is done on Moodle in the week 1 workshop timeslot.

# Assessment 2: Professional Task - ePortfolio

Marking Criteria	The marking criteria via a rubric, will be made available on your eLearning site by week 3 of session.	
Length	This is an electronic website submission. Word limits are indicative and need to be considered if incorporating videos or other multimedia. Be mindful of your audience who expect succinct critical reflection, supported by evidence through artefacts. A total word limit of 1500 words is expected (excluding citations), which is 250 words per section/tab/theme including the personalised statement.	
Weighting	15%	
Assessment Due	26 May 2024 (Sunday in Session Week 13) Final submission time: 11:30pm	
Type of Collaboration	Individual assessment	
Style and format	This assessment is an eportfolio aimed at developing digital skills and showcasing knowledge and skills development throughout the subject. The	

	portfolio is broken up into multiple sections (1500 words max, max 250 words per section) that reflects the different skills developed throughout the subject (e.g., performing chemical analysis, teamwork, networking skills, job readiness etc). Reflections should be succinct and include evidence gathered throughout the subject. You are free to choose the platform used to present the portfolio (could be a website etc) but must consider how well the chosen media can be accessed by staff and peers and whether they still have access after subject completion to continue working on it should they choose to do so. Suggestions for platforms will be provided in week 1.
Assessment submission	Online via Moodle
Assessment return	Within 3 weeks from due date as per UOW Policy
Detailed information	Throughout the semester, you focus on developing knowledge and skills in research and employability (discussed in week 1). The portfolio is a critical self-reflection on your journey throughout the subject and skills development in research and employability where you reflect on their development before and during CHEM324 (and other subjects if relevant). You are encouraged to provide evidence in the form of photos, videos, and data visualisation formats such as graphs. It is graded by your peers. Examples of similar portfolios from BIOL342 will be provided to students via Moodle.  Your ePortfolio should start with a personalised statement (could be text, audio, video), followed by up to 5 themed pages/tabs focused on your critical reflection of your knowledge and skill development in employability and research.

**Assessment 3: Report - Project 1 Report** 

Abbessment 5. Report	1 Toject 1 Report
Marking Criteria	The marking criteria via a rubric will be made available on your eLearning site by week 3 of session
Length	max 10 pages
Weighting	15%
Assessment Due	08 Apr 2024 (Monday in Session Week 7) Final submission time: 5:00pm
Type of Collaboration	Individual assessment
Style and format	Following completion of project 1 you will communicate your findings by writing a 'Results' and a 'Discussion' section of a scientific paper.  Resources for writing scientific papers can be found on the subject Moodle site.
Assessment submission	Online via Moodle This assessment has been set up to be checked by Turnitin, a tool which helps you check whether you have referenced correctly. You can submit your assessment task to Turnitin prior to the due date and Turnitin will give you an originality report. You may then make any changes that may be required and resubmit your final version by the due date.
Assessment return	Within 3 weeks from due date as per UOW Policy
Detailed information	This report will be in the form of a results and discussion section of a scientific paper. It will focus on the experimental work and results collected for the first project where they will analyse different components in a sample mixture by different methods. The discussions should also focus on the relative strengths and weaknesses of the different techniques used especially in cases where the same component is measured by two different techniques. As part of the report students will also be provided data acquired by other students to discuss the strengths and weaknesses of different chemical analysis techniques.

# **Assessment 4: Presentation - Poster Presentation**

Marking Criteria	The marking criteria via a rubric will be made available on your eLearning site by week 3 of session	
Length	One slide electronic poster	
Weighting	15%	
Assessment Due	13 May 2024 (In workshop in Session Week 11) Final submission time: 8:30am	
Type of Collaboration	Group work	
Style and format	Poster for presenting on screen during your workshop. Students may choose to use applications such as PowerPoint or Canva. Further details on required format will be provided before week 4	
Assessment submission	Online via Moodle	
Assessment return	Within 3 weeks from due date as per UOW Policy	
Detailed information	This will be an poster presented as part of a conference-style poster session. It is presented collaborative for each small research group within Project 2 (2-3 students). The poster will describe research (methods, results etc) performed within project 2. The poster is presented to both classmates and the teaching team, including project supervisors. Example posters and resources will be provided on Moodle. The poster is to be presented as a team, and part of the grading is based on answers to questions about the presented research.	

# Assessment 5: Lab/Prac/Simulation - Student lab book

Marking Criteria	The marking criteria via a rubric will be made available on your eLearning site by week 3 of session	
Length	You will need to decide the length and composition of your eNotebook and this will be discussed during project 1.	
Weighting	10%	
Assessment Due	01 Apr 2024 (Monday in Session Week 6)	
Type of Collaboration	Individual assessment	
Style and format	Submit an electronic copy of your assessment via eNotebook software - LabArchives	
Assessment submission	Submit an electronic copy of your assessment via eNotebook software - LabArchives	
Assessment return	Within 3 weeks from due date as per UOW Policy	
Detailed information	For project 1 you will setup an electronic lab notebook using Lab Archives for recording all information relevant to the experimental data analysis. You can decide the exact format and layout of the notebook. The notebook will be reviewed during lab class and a marking rubric provided on Moodle. While the notebook will only be assessed for project 1 it is to also be used for project 2	

# **Assessment 6: Report - Project 2 Report**

Marking Criteria	The marking criteria via a rubric will be made available on your eLearning
	site by week 3 of session.

Length	Maximum 30 pages, including table of contents, references and appendices. Spacing at least 1.5 and size 12 Times New Roman font (or equivalent)			
Weighting	40%			
Assessment Due	27 May 2024 (Monday in Session Week 13) Final submission time: 5:00pm			
Type of Collaboration	Individual assessment and group work			
Style and format	You will write a complete scientific report. it is to be prepared and submitted as a group			
Assessment submission	Online via Moodle This assessment has been set up to be checked by Turnitin, a tool which helps you check whether you have referenced correctly. You can submit your assessment task to Turnitin prior to the due date and Turnitin will give you an originality report. You may then make any changes that may be required and resubmit your final version by the due date.			
Assessment return	Within 3 weeks from due date as per UOW Policy			
Detailed information	This assessment is in the form of a report performed within project 2 (including introduction, methods, results, discussion, conclusions and references). Details on the required format will be discussed and examples of similar reports from BIOL342 will be provided. Students are expected to incorporate any relevant feedback given within the assessment of the project 1 report. The report is to be prepared within the small project group. Students will be asked to construct a group agreement outlining the responsibilities of each member and keep a log of communications and actions within the group. This is chosen as a group task to reflect the real world, where project reports are almost always prepared as part of a team. 50% of the grade will be in the form of a group grade and 50% will be individual. The individual grade is split evenly by peer assessment of group members (moderated if needed by the academic leading the project) and assessment of contributions by supervisor.			

# 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 total marks accumulated are greater than 50%.

The minimum performance requirements for this subject are:

- attempt all assessment tasks
- meet the minimum attendance and participation requirements

Student attendance at practicals, is compulsory and students must attend at least **85% of classes.** Absences will require the submission of an application for Academic Consideration via SOLS and the presentation of suitable documentation, for example a Medical Certificate, to Student Central as soon as practical. For further details about applying for academic consideration visit the Student Central

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

# **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: https://documents.uow.edu.au/about/policy/alphalisting/UOW222910.html

# **Assessment Learning Outcome Matrix**

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

# 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 extensions of time to submit an assessment task, deferred exam, alternative form of assessment or exemption of a compulsory attendance requirement must apply online via SOLS and provide documentary evidence within three working days of the assessable item's due date for their request to be considered. For information on the Policy, eligibility and how to apply see:

https://www.uow.edu.au/student/admin/academic-consideration/

# **Late Submission Penalty**

Late submissions will receive a penalty of 5% per day (or part thereof) of the total possible marks for the assessment task for up to ten (10) days after the due date and time for submission (including weekends, and public holidays), or, where an extension has been granted, for up to ten (10) days after the nominated extension deadline. For the purposes of this penalty a weekend (Saturday and Sunday) will be regarded as two days.

No marks will be awarded for work submitted:

- more than ten (10) days after the due date, or
- after the assessment has been returned to the students; whichever is applicable.

In such an instance, a mark of zero and a result of Fail for the task will be applied.

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

#### **Quiz Completion**

Where there is a quiz component, any student who has not attempted and submitted a quiz within the specified timeframe will receive 0 (zero) marks for this assessment type. The quiz will not be reopened, and no alternative assessment will be set without extenuating circumstances and an approved academic consideration application. Late penalties do not apply to quizzes. If a student attempts a quiz but for technical issues is not able to submit the quiz, students must show evidence and apply for an academic consideration to sit a supplementary quiz.

#### 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 Standards for the Finalisation of Student Results Schedule 1: Scaling Guidelines <a href="https://www.uow.edu.au/about/policy/UOW039331.html">https://www.uow.edu.au/about/policy/UOW039331.html</a> 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. The Subject Coordinator will determine the precise form of supplementary assessment at the time the offer of a supplementary is made. In some circumstances you may be offered a supplementary exam. For more information about Supplementary Exams refer to: <a href="http://www.uow.edu.au/student/exams/aboutsupp/index.html">http://www.uow.edu.au/student/exams/aboutsupp/index.html</a>

#### **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 <a href="https://documents.uow.edu.au/about/policy/students/UOW189967.html">https://documents.uow.edu.au/about/policy/students/UOW189967.html</a>

# **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 https://www.uow.edu.au/about/policy/UOW058648.html

# 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 web page, accessed here <a href="https://getstarted.uow.edu.au/index.html">https://getstarted.uow.edu.au/index.html</a> or search for "Get Started @ UOW". Services available include:

Service	Link to information about the service
Aboriginal & Torres Strait Islander	https://www.uow.edu.au/wic/about1/index.html?ssSourceSiteId=getstarted
Careers advice	https://www.uow.edu.au/careers/index.html?ssSourceSiteId=getstarted
Counselling	https://www.uow.edu.au/student/counselling/index.html?ssSourceSiteId=getstarted
Student Accessibility and Inclusion (SAI)	https://www.uow.edu.au/student/disability/index.html?ssSourceSiteId=getstarted
Information Tech.	https://www.uow.edu.au/its/index.html?ssSourceSiteId=getstarted
Study Skills	https://www.uow.edu.au/student/learningcoop/index.html?ssSourceSiteId=getstarted

## **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: <a href="https://www.uow.edu.au/student/support-services/coordinators/">https://www.uow.edu.au/student/support-services/coordinators/</a>

#### **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: <a href="https://www.uow.edu.au/student/support-services/advocacy/">https://www.uow.edu.au/student/support-services/advocacy/</a>

## **Student Central**

Student Central is your primary administrative and information contact during your studies. There are service representatives from Student Service, Accommodation Services, BUPA, Global Student Mobility (Exchange) and Scholarships and Sponsorships.

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, some are:

- Applying for academic consideration
- Official documentation requests
- Updating personal details
- Student ID card replacement
- Opal cards and transport
- Education verification
- Fees and charges
- Scholarships and grants
- Digital and printed academic documents
- Overseas health cover
- Studying abroad and exchange

- SOLS password and login help
- Student feedback

#### Student Central contacts:

Phone	1300 275 869 (1300 ASK UOW) or +61 2 4221 3927	
Email	askuow@uow.edu.au	
Online	Enquiry Form (https://bps.uow.edu.au/suite/sites/student-enquiry/page/submit-enquiry	

## **Library Services**

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

- For Library support connect with <u>Live Chat</u> or <u>contact the Library</u>.
- For self-help see <u>Frequently Asked Questions</u> or browse <u>Library guides</u> 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: <a href="http://www.uow.edu.au/about/policy/UOW058648.html">http://www.uow.edu.au/about/policy/UOW058648.html</a>

#### **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: http://www.uow.edu.au/about/policy/UOW058663.html

# **Code of Practice - Honours**

This Code sets out the responsibilities of all parties involved in managing students undertaking Honours Programs. The Code can be found at: http://www.uow.edu.au/about/policy/UOW058661.html

## 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. http://www.uow.edu.au/about/policy/UOW058662.html

#### **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: http://www.uow.edu.au/about/policy/alphalisting/UOW026670.html

#### **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: http://www.uow.edu.au/about/policy/UOW058679.html

#### **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 found here: https://www.uow.edu.au/student/exams/

# Ethical or Religious 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: http://www.uow.edu.au/about/policy/UOW058708.html

#### **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: <a href="https://documents.uow.edu.au/about/policy/UOW262890.html">https://documents.uow.edu.au/about/policy/UOW262890.html</a>

#### **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: <a href="http://www.uow.edu.au/research/ethics/human/index.html">http://www.uow.edu.au/research/ethics/human/index.html</a>

#### **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: <a href="http://www.uow.edu.au/about/policy/alphalisting/UOW140611.html">http://www.uow.edu.au/about/policy/alphalisting/UOW140611.html</a>

# **Intellectual Property Policy**

UOW's 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 <a href="http://www.uow.edu.au/about/policy/UOW058689.html">http://www.uow.edu.au/about/policy/UOW058689.html</a>

# 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: <a href="http://www.uow.edu.au/about/policy/UOW058653.html">http://www.uow.edu.au/about/policy/UOW058653.html</a>

# **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: <a href="https://www.uow.edu.au/student/admin/academic-consideration/">https://www.uow.edu.au/student/admin/academic-consideration/</a>

#### 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. http://www.uow.edu.au/student/charter/index.html

# 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: <a href="http://www.uow.edu.au/about/policy/UOW058690.html">http://www.uow.edu.au/about/policy/UOW058690.html</a>

#### **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. <a href="http://www.uow.edu.au/about/policy/UOW058723.html">http://www.uow.edu.au/about/policy/UOW058723.html</a>

# 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: <a href="http://www.uow.edu.au/about/policy/alphalisting/UOW222905.html">http://www.uow.edu.au/about/policy/alphalisting/UOW222905.html</a>

#### 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: <a href="http://www.uow.edu.au/about/policy/UOW058666.html">http://www.uow.edu.au/about/policy/UOW058666.html</a>

#### **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: <a href="http://www.uow.edu.au/about/policy/alphalisting/UOW222906.html">http://www.uow.edu.au/about/policy/alphalisting/UOW222906.html</a>

# 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://www.uow.edu.au/about/policy/alphalisting/UOW016894.html