# Faculty of Science, Medicine and Health School of Earth, Atmospheric and Life Sciences



# **SCII910: Advanced Remote Sensing**

# **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 should contact the Subject Coordinator about enrolling 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: https://www.uow.edu.au/science-medicine-health/

# **Teaching Staff**

Teaching Role	Coordinator	
Name	Associate Professor Laurie Chisholm	
Telephone	3765	
Email	lauriec@uow.edu.au	
Room	41.G25	
<b>Consultation Times</b>	During weekly class time or contact via email to schedule an appointment	

# **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 https://www.uow.edu.au/student/learningcoop/software/emailetiquette/index.html

# **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.
- Moodle Discussion forums pertinent to specific assignments will be used but will not replace or be used for overarching subject announcements.
  - Assignment discussion forums for specific assignments will be clearly labelled in the forum description to identify the purpose of the forum (e.g. 'Please ask any questions you have about Assessment Task 1 in this discussion forum') students should check and ask any assignment questions on these forums and not through email.
  - The Moodle assignment discussion forums should always be used in the first instance when inquiring about assessment tasks.
- 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
- In relation to assessment questions, Moodle assignment forums should be used rather than email.

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 <a href="https://documents.uow.edu.au/about/policy/students/UOW">https://documents.uow.edu.au/about/policy/students/UOW</a> 140611.html
- The Student Charter https://www.uow.edu.au/student/charter/

#### **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 https://documents.uow.edu.au/about/policy/students/UOW140611.html

# **Copyright**

Commonwealth of Australia

Copyright Regulations 1969

© 2024 University of Wollongong

The original material prepared for this guide is covered by copyright. Apart from fair dealing for the purposes of private study, research, criticism or review, as permitted under the Copyright Act, no part may be reproduced by any process without written permission.

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

# **Table of Contents**

	,
Section A: General Information	
Learning Outcomes	
Subject Learning Outcomes	
Subject Description	
Course Handbook	
Subject Details: Practical Activities, eLearning, Readings and Materials	
Subject eLearning	
Safety Guidelines	
EMBEDDED Work Integrated Learning	
Additional Subject Details	
Major Text(s)	
Recommended Readings and Other Resources	
Additional Materials	
Lectures, Tutorials and Attendance Requirements	
Lecture Times *	
Lecture Program *	
Additional Lecture Comments	
Lecture Recording.	
Your Privacy - Lecture Recording	
Recent Improvements to Subject	10
Extraordinary Changes to the Subject Outline	
Learning Analytics	10
Section B: Assessment	11
Assessment Summary	
Minimum Requirements to Pass this Subject	
UOW Grade Descriptors	
Assessment Learning Outcome Matrix	
Submission, Retention and Collection of Written Assessment	
Extensions	
Late Submission Penalty	
Collection	
Retention	
Scaling	
Supplementary Assessment	
Review and Appeal of Academic Decisions	
Assessment Quality Cycle	
Academic Integrity	
Referencing	
9	
Section C: General Advice for Students - Policies and Procedures	
Student Services and Support	
Student Support Coordinator (SSC)	
Student Advocacy Service	
Student Central	
Library Services	
Academic Integrity Policy	
Code of Practice - Research	
Code of Practice - Honours	
The Code of Practice - Work Integrated Learning (Professional Experience)	
Copyright Policy	
Course Progress Policy	
Examination Rules and Procedures	
Ethical or Religious Objection by Students to the Use of Animal and Animal Products in Cour	
Subjects	
Coursework Rules	
Human Rasaarch Ethics	1 2

Inclusive Language Guidelines	18
Intellectual Property Policy	18
Review and Appeal of Academic Decisions Policy	
Student Academic Consideration Policy	
The Student Charter - Your Rights and Responsibilities	
Student Assignment of Intellectual Property (IP) Policy	
Student Conduct Rules	19
Teaching and Assessment: Assessment and Feedback Policy	19
Teaching and Assessment: Code of Practice - Teaching	19
Teaching and Assessment: Subject Delivery Policy	19
Workplace Health & Safety Policy	

# **Section A: General Information**

# **Learning Outcomes**

#### **Subject Learning Outcomes**

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

- 1. Demonstrate the principles of remote sensing for interpretation of spectral data
- 2. Locate, analyse, and integrate data, information, and literature on remote sensing using appropriate theories, methods and techniques
- 3. Critically compare perspectives, knowledge and findings on remote sensing and communicate them effectively, ethically, and professionally using appropriate technologies and interpersonal skills
- 4. Apply advanced knowledge and appropriate techniques of remote sensing, including those associated with fieldwork, to critically evaluate possible solutions to real world problems

#### **Subject Description**

Remote sensing uses sensors mounted on satellites, planes, or drones to collect spectral data for earth observation. Sensors 'see' information well outside the range of the human eye. Applications you may be familiar with include weather, forest health, fisheries monitoring, glacial melt, habitat destruction, natural disasters, and human refugee displacement. Newer applications are constantly emerging, with some less well-known uses including cemetery inventories, tax-evasion (unapproved construction), insurance compliance (swimming pool fences), tracing disease outbreaks (population and transport patterns in Wuhan before Oct '19), monitoring oil levels in storage tanks linked to the stock exchange, and journalists using satellite data as source and proof for stories.

This subject has a strong application focus. SCII910 takes on the role of a firm or agency in which a major project is scoped out and taken through the project life cycle. You will work in groups to complete the project, submitting both group and individual submissions. Each group will identify a remote-sensing informed solution to a discipline related problem that addresses a substantive issue related to one or more of the UN SDG Goals.

You will develop your theoretical and practical understanding of remote sensing through the fundamental's unit and the project-based work using image analysis software to address a germane aspect of sustainability. A professional work practice and ethic is fostered through peer-peer and peer-facilitator interactions which occur weekly workshops and are supported by computer practicals for skill development in image analysis techniques and methods.

#### 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, 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 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, attendance on field excursions may be denied to students who do not abide by these and other conditions which may be specified by the Subject Coordinator.
- For subjects including field trips, students may be required to contribute to transport costs associated with the provision of field trips that form part of the course of study.

#### **EMBEDDED Work Integrated Learning**

This subject contains elements of 'Embedded WIL'. Students in this subject will experience activities that relate to or simulate professional practice as part of their learning.

#### **Additional Subject Details**

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)

The following is **PRESCRIBED** for this subject:

**Earth Observation Australia** provides a series of volumes which offer free, current and importantly, Australian content related to all aspects of remote sensing.

While slightly cumbersome as some content for a topic can be spread across multiple volumes, the advantages far outweigh this slight downside.

These are downloadable from: <a href="https://www.eoa.org.au/earth-observation-textbooks">https://www.eoa.org.au/earth-observation-textbooks</a>

*Volume 1: Data* (2 sub-volumes)—outlines the basics of Earth Observation in terms of energy sources, data acquisition, sampling characteristics, image availability, image interpretation, and usage.

**Volume 2: Processing** (5 sub-volumes)—describes the various options involved with image representation, analysis, transformation, integration, and modelling, including details of relevant algorithms, with emphasis on their underlying mathematical and statistical principles.

*Volume 3: Applications* (2 sub-volumes)—details EO applications for Terrestrial Vegetation (3A) and Surface Waters (3B) in an Australian context.

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

A broad range of literature - reports, journal articles, websites - are provided in support of SCII910.

The library holds a variety of books specifically on remote sensing and/or image processing which can be used to supplement your learning.

It is an expectation that students will access peer-reviewed journal articles in support of assessments.

Students should also use the library catalogue and databases to locate additional resources.

#### **Additional Materials**

The subject uses specific software for image processing and analysis - ENVI (Environment for Visualizing Images). The company supplying this software does not provide a student version but may consider special circumstances (contact Coordinator). ENVI is available in: 43.G01, 43.G06 and building 17.

A thumb-drive for data downloading and management is required for the practical classes.

# **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	Practicals
1	26 Feb 2024	Subject overview & introduction Light and EMR	
2	04 Mar 2024	Soil, vegetation, water reflectance spectra Sensors	Practicals:
3	11 Mar 2024	Sensors Image Enhancements	Practical:  • Sensor Comparison & Image Enhancement
4	18 Mar 2024	Assessment 1: Quiz (in-class via Moodle)  Corrections   Image Products Spectral Enhancements	Practical:  • Spectral Enhancements
5	25 Mar 2024	Basic Image Statistics Classification	Practical:  • Scatterplots & Basic Statistics
6	01 Apr 2024	Classification Case study applications	Practical:

			• Classification > ROI's
7	08 Apr 2024	Assessment 2 (Project Pitch Presentations (lecture period) Classification   Validation	Practical:  • Classification
	15 Apr 2024	Mid-Session Recess	
			Practical:
8	22 Apr 2024	Multi-temporal techniques	Accuracy Assessment
9	29 Apr 2024	Advanced Techniques	Group work ends this week. Practical:  • Change Detection
10	06 May 2024	Applications	Individual (no further groups) project work continues
11	13 May 2024	Applications	Individual project work continues as needed.
12	20 May 2024	Future of Remote Sensing (online only)	Individual project work continues as needed. Submit Assessment 3
13	27 May 2024	-	
	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**

This subject utilises interactive lecture periods and image processing practicals (most weeks) Lectures are recorded and available for review. A variety of resource material is presented on Moodle in support of all lecture topics. Optimally these materials should be worked through the week prior to the related practical to maximise learning opportunities.

# **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>

# **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.

This subject has been created as a postgraduate equivalent subject to SCII310 for delivery in 2024 and utilises a student-based pedagogy model.

# **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	20%
Assessment 2	Presentation	35%
Assessment 3	Report	45%
	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** 

Assessment 1. Quiz		
Marking Criteria	The marking criteria for this assessment task are available in Moodle.	
Length	Ten (10) questions (to be confirmed)	
Weighting	20%	
Assessment Due	Week beginning 18 Mar 2024 (In lecture in Session Week 4) Final submission time: 12:00pm	
Type of Collaboration	Individual assessment	
Style and format	Online quiz containing questions of varying format which may include multiple choice, matching and/or short answer.	
Assessment submission	Online via Moodle	
Assessment return	Automated from Moodle after all students have completed the assessment.	
Detailed information	Questions are based upon the foundational material delivered from weeks 1 – 3 inclusive.	

**Assessment 2: Project Pitch Presentation** 

Marking Criteria	The marking criteria for this assessment task are available in Moodle. Before submitting your assessment task, ensure you have evaluated your work against the marking rubric.	
Length	Slide deck. Oral presentation of ten (10) minutes.	
Weighting	35%	
Assessment Due	Week beginning 08 Apr 2024 (In lecture in Session Week 7) Final submission time: 2:00pm	
Type of Collaboration	Group work	
Style and format	Group project pitch presentation (in-lecture class). Slide deck is submitted to Moodle.	
Assessment submission	In-lecture class / online via Moodle	
Assessment return	~ 2 weeks after submission	
Detailed information	Throughout session you will work within groups to develop a solution to a sustainability project using remote sensing data products and image analysis methodologies. For this assessment, your group delivers an in-class 10-	

minute pitch presentation using PowerPoint and submits the slide deck to Moodle. Groups revise strategy based upon the feedback received.
Full instructions are available via Moodle.

**Assessment 3: Project Report** 

Abbessiiieii 5. 1 Tojeet	F	
Marking Criteria	Marking criteria and full instructions are provided on the Moodle site. Before submitting your assessment task, ensure you have evaluated your work against the marking rubric.	
Length	Report 5000 words +/- 20%, not including any tables, figures, references and appendices.	
Weighting	45%	
Assessment Due	24 May 2024 (Friday in Session Week 12) Final submission time: 11:30pm	
Type of Collaboration	Individual assessment	
Style and format	This assessment consists of two tasks: 1. project report with compulsory workflow diagram (30%) 2. WIL (work-integrated learning) project evaluation (15%)	
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	~ 2 weeks of submission.	
Detailed information	Each student will create:  1. a project report based upon results of applying remote sensing to the sustainability problem addressed. Groups will have used provided data to perform analyses and obtain results. Based on what these results are, there is scope for further work by individuals to enhance the product which can be written into the report. Based upon the final analysis completed, a workflow diagram is created to be embedded within the report. The Report is presented in scientific format and includes a critical evaluation of the solution.  2. a WIL-based evaluation of the project including a self-assessment and an assessment of the group approach.  Full instructions are provided in Moodle.	

# Minimum Requirements to Pass this Subject

Students should note that UOW equates 1 credit point to around 1.5 - 2 hours of study per week, including lectures and tutorials/workshops/practicals, self-directed study and work on assessment tasks. For example, in a 6 credit point subject requires that students commit about 9 - 12 hours study a week, including attendance at lectures and tutorials.

Student attendance at the practicals is compulsory to successfully complete the subject. If outstanding or unusual circumstances prevail, contact the Subject Coordinator.

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

#### **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

<u>https://www.uow.edu.au/student/exams/results/</u>. 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		
		Project Pitch Presentation	Project Report	
	(20%)	(35%)	(45%)	
Demonstrate the principles of remote sensing for interpretation of spectral data		<b>√</b>	√	
Locate, analyse, and integrate data, information, and literature on remote sensing using appropriate theories, methods and techniques		٧	√	
Critically compare perspectives, knowledge and findings on remote sensing and communicate them effectively, ethically, and professionally using appropriate technologies and interpersonal skills		٧	√	
Apply advanced knowledge and appropriate techniques of remote sensing, including those associated with fieldwork, to critically evaluate possible solutions to real world problems			√	

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

#### **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 be utilised. A summary of the Harvard system can be accessed on the Library website at: <a href="http://uow.libguides.com/refcite">http://uow.libguides.com/refcite</a>

# **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: <a href="http://www.uow.edu.au/about/policy/alphalisting/UOW026670.html">http://www.uow.edu.au/about/policy/alphalisting/UOW026670.html</a>

#### **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: <a href="https://www.uow.edu.au/student/exams/">https://www.uow.edu.au/student/exams/</a>

# 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