



School of Chemistry and Molecular Bioscience

BIOL213: Principles of Biochemistry

Subject Outline

Autumn 2021
On-Campus
Wollongong

Subject Information

Credit Points: 6
Pre-requisite(s): BIOL103 & CHEM101 and CHEM102 or CHEM104 & CHEM105
Co-requisite(s): Subject Code to be entered from subject database
Restrictions: As per subject database
Contact Hours: As per subject database

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Section A: General Information

Subject Learning Outcomes

On successful completion of this subject, students will be able to:
1. Describe the major classes of macromolecules and their subunits;
2. Describe the basic principles of enzyme function;
3. Describe the information flow from DNA to protein;
4. Perform the calculations necessary to relate physical amounts and concentrations of biochemicals;
5. Interpret biochemical data and reach valid scientific conclusions;
6. Display an understanding of the following experimental skills: i. Safe and responsible conduct in laboratories ii. The ability to dispense and manipulate small (μl) volumes accurately iii. Use and understand the operation of a limited range of modern laboratory equipment

Subject Description

Structure and biological functions of proteins, nucleic acids, carbohydrates and lipids and their subunits. Membrane structure. Enzymes, their functions and their regulation. The central dogma of Molecular Biology – from genes to proteins.

Readings, References and Materials

Textbooks:

This subject uses the following text(s).

- Lehninger, Principles of Biochemistry, 7th Ed, International Edition, Nelson and Cox (2016) W.H. Freeman Macmillan Learning, New York

Prescribed Readings (includes eReadings)

Nil

Materials

- UOW Approved Calculator
- Laboratory Coat and safety glasses for the wet-practical laboratories

Recommended Readings

The following references complement the prescribed readings and textbooks:

- Biochemistry (6th edition) Berg, Tymoczko & Stryer (574.192/49)
- Biochemistry (3rd edition) Mathews, van Holde & Ahern (574.192/88)
- Principles & Techniques of Biochemistry and Molecular Biology (6th edition) Wilson & Walker (574.192028/16)
- iGenetics (3rd edition) Russell (576.5/5)

Recommended readings are not intended as an exhaustive list, students should use the Library catalogue and databases to locate additional resources.

Recent Changes to this Subject

- Changes to this subject have been made recently as a result of restrictions resulting from the COVID-19 pandemic. These changes include:
 - A decrease in the number of wet practicals delivered due to restrictions on the number of people allowed in the laboratory space
 - The online delivery of the mid-session and final quizzes
 - Amendments to the minimum requirements for a Pass in the subject (see below)
- This subject has been adjusted to be delivered remotely for Autumn 2021 session. Please see further information on Remote Learning for Students on the following link: <https://www.uow.edu.au/student/remote-learning/>

Lecture Recordings

The University of Wollongong supports the recording of lectures 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 you can only do so with the explicit permission of the lecturer and those people who are also being recorded.

You may only use recorded lectures, 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.

All lectures in this subject will be recorded, when they are scheduled in venues that are equipped with ECHO360 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), therefore the University further advises students that:

- Lecture recordings are made available to students, university staff, and affiliates, securely on the university's Echo360 ALP (Active Learning Platform) via the eLearning platform Moodle;
- 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 two years.

If you believe your personal information has been collected in a recorded lecture you can approach your Subject Coordinator and ask to view this information. If your personal information has been collected and you do not want it used or stored you can request the recording be edited.

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

Ethical Objection to the Use of Animal and Animal Products

In order to achieve specific learning objectives, the use of animals, animal tissues, and or animal-derived products (such as sera) is inherent and unavoidable. Students with conscientious objections to this use should not enrol in this subject.

Students who intend to avoid a particular learning activity on the basis of conscientious objection should notify the subject coordinator in writing as soon as possible and **not later than the end of Week 1 of the session**. Students who do not participate in a particular learning activity are required to complete an alternative exercise (a CD-ROM is available) or attend the practical and "observe". The material involved is examinable and the prac must be written up and completed in your workbook. For further information, refer to <http://www.uow.edu.au/about/policy/UOW058708.html>

Laboratory Safety Guidelines

The rules below are general rules that are required in laboratories.

- Before commencing your project you are to ensure that you understand specific procedures for the laboratory in which you work.
- You will need to fill out a risk assessment form before commencing any experiments (confer with your laboratory supervisor).
- 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.

List of Topics Covered

The following are examples of the topics to be covered in this course. This is not an exhaustive list and will be subject to change.

- Amino acids: properties and functional groups
- Protein structure and separation of proteins
- Carbohydrates and glycobiology
- Nucleotides and nucleic acids
- Lipids and membrane structure and function
- Genes and chromosomes
- Replication in prokaryotes and eukaryotes
- Transcription in prokaryotes and eukaryotes
- Translation and protein modifications
- Protein Function and ligand binding
- Enzymes and bioenergetics
- Enzyme Kinetics and regulation

A Timetable of Topics will be available from the eLearning site in week 1 of session.

Section B: Assessment

Assessment Summary

Assessment Item	Form of Assessment	Due Date	Return/Feedback Due date	Weighting
Assessment 1	Practical pre-lab and post-lab online quizzes	Pre-lab quizzes due before the prac class; Post-lab quizzes due 3-4 days after the prac class	Within 21 days of due date	15%
Assessment 2	Mid-session theory quiz	Week 6	Within 21 days of due date	20%
Assessment 3	Electronic lab notebook worksheet	At the end of the prac class	Within 21 days of due date	15%
Assessment 4	Practical quiz	Week 12	Within 21 days of due date	10%
Assessment 5	Final theory quiz	During exam period	Release of results	40%
			Total Marks	100%

Details of Assessment Tasks

Assessment tasks will be marked using explicit criteria that will be provided to students prior to submission.

Assessment 1	Practical pre-lab and post-lab quizzes
Due Date	Pre-lab quizzes due before the prac class; Post-lab quizzes due 3-4 days after the prac class
Weighting	15%
Submission	Online
Type of Collaboration	Individual Assessment
Length	To be completed before and following each prac class
Details	Will contain experimental data, calculations and quiz-style questions pertaining to that week's practical class.
Style and format	Online quiz questions
Subject Learning Outcomes	4, 5, 6
Marking Criteria	Marked against a standardised answer sheet

Assessment 2	Mid-session theory quiz
Due Date	Week 6
Weighting	20%
Submission	Online
Type of Collaboration	Individual Assessment
Length	45 min
Details	Multiple choice and short answer questions covering the theory content of module 1 of the subject
Style and format	Online quiz delivered through Moodle
Subject Learning Outcomes	1,2
Marking Criteria	Marked against a standardised answer sheet

Assessment 3	Electronic lab notebook worksheet
Due Date	At the end of the prac class
Weighting	15%
Submission	Electronic lab notebook
Type of Collaboration	Group Assessment
Length	Prac class time
Details	Record and analyse data collected in prac class, and answer questions pertaining to the class
Style and format	Practical worksheet
Subject Learning Outcomes	4, 5, 6
Marking Criteria	Marked against a standardised answer sheet

Assessment 4	Practical quiz
Due Date	Week 12
Weighting	10%
Submission	Online
Type of Collaboration	Individual Assessment
Length	45 min
Details	Experimental data, calculations and quiz-style questions pertaining to practicals
Style and format	Online quiz delivered through Moodle
Subject Learning Outcomes	4, 5, 6
Marking Criteria	Marked against a standardised answer sheet

Assessment 5	Final theory quiz
Due Date	During exam period
Weighting	40%
Submission	Exam papers and answers must be submitted at the conclusion of the exam
Type of Collaboration	Individual Assessment
Length	2 hours
Details	Multiple choice and short answer questions covering the theory content of modules 2 and 3 of the subject
Style and format	Paper-based final exam
Subject Learning Outcomes	1, 2, 3
Marking Criteria	Marked against a standardised answer sheet

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:

- achieve a combined minimum mark for the theory-related assessment tasks (2 and 5) of 45%, and
- achieve a combined minimum mark for the practical-related assessment tasks of 50% (1,3 and 4), and
- meet the minimum participation requirements set out below.

Minimum Student Attendance and Participation

It is expected that students will allocate 12 hours per week to this subject, including any required class attendance, completion of prescribed readings and assessment tasks.

Student attendance at practicals and tutorials is compulsory and students must attend 100% of practical and tutorial 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>

If you miss a practical or tutorial class for whatever reason, you must submit an application for Academic Consideration via SOLS. It required, you should also contact the subject coordinator as soon as possible. All practicals are assessable whether you attend or not, therefore the onus is on you to catch up on any material that you may have missed. You must do this by personal study and by seeking assistance from fellow students in your group, lecturers and/or demonstrators if necessary.

Scaling

Scaling may occur in this subject at the end of session by the Unit Assessment Committee and/or Faculty Assessment Committee (FAC). Marks will only be scaled to ensure fairness/parity of marking across groups of students. Scaling will not affect any individual student's rank order within their cohort. For more information refer to Assessment Guidelines – Scaling:

<http://www.uow.edu.au/about/policy/UOW039331.html>

Late Submission

Late submission of an assessment task without an approved extension of the deadline is not acceptable. If you are unable to submit an assessment due to extenuating circumstances (e.g. medical grounds or compassionate grounds), you can make an application of academic consideration. Not all circumstances qualify for academic consideration. For further details about applying for academic consideration visit the Student Central webpage:

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

Late Submission Penalty – at 10%

Late submission of an assessment task without an approved extension of the deadline is not acceptable. For pre-lab and post-lab quizzes, failure to complete the quiz by the due date and time will result in a zero (0) mark for that quiz. For the electronic notebook, marks will be deducted for late submission at the rate of 10% of the total possible marks for that particular assessment task per day. This means that if the notebook is marked out of 100, then the late penalty will be 10 marks per day (10% of 100 possible marks per day). The formula for calculating the late penalty is the total possible marks x 0.10 x number of days late. For the purposes of this policy a weekend (Saturday and Sunday) will be regarded as two days.

For example:

- Student A submits an assessment which is marked out of 100. The assessment is submitted 4 days late. This means that a late penalty of 40 marks will apply ($100 \times 0.10 \times 4$). The assessment is marked as per normal out of 100 and is given a mark of 85/100, and then the late penalty is applied. The result is that the student receives a final mark of 45/100 for the assessment (85 (original mark) – 40 marks (late penalty) = $45/100$ (final mark)).
- Student B submits an assessment which is marked out of 20. The report is submitted three days late. This means that a late penalty of 6 marks will apply ($(20 \times 0.10 \times 3)$). The report is marked as per normal out of 20 and is given a mark of 15/20, and then the late penalty is applied. The result is that the student receives a final mark of 9/20 for the report (15 (original mark) – 6 marks (late penalty) = $9/20$ (final mark)).

No marks will be awarded for work submitted after the assessment has been returned to the students (except where a particular assessment task is undertaken by students at different times throughout

the session, but where the assessment is based on experiments or case studies specific to a student). Notwithstanding this, students must complete all assessment tasks to a satisfactory standard and submit them, regardless of lateness or loss of marks, where submission is a condition of satisfactorily completing the subject.

Academic Consideration

If you believe that your submission of, performance in or attendance at an assessment activity, including an examination, has been affected on compassionate grounds, by illness or by other serious extenuating circumstances beyond your control, you can apply for academic consideration in Student On Line Services (SOLS). Do not assume that an application for academic consideration will be automatically granted. For more information please refer to the Student Academic Consideration Policy at: <http://www.uow.edu.au/about/policy/UOW058721.html>

In some circumstances you may be offered a deferred exam. For more information about Deferred and Supplementary Exams refer to: <http://www.uow.edu.au/student/exams/aboutsupp/index.html>

Review and Appeal of Academic Decisions Policy

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. Refer to the Review and Appeal of Academic Decisions Policy (<http://www.uow.edu.au/about/policy/UOW058653.html>) for further information.

Supplementary Assessments

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 precise form of supplementary assessment will be determined at the time the offer of a supplementary assessment is made.

Students can log on to SOLS and click on the link titled "Supplementary Assessment" to view any applicable offers or use the following link;
<http://www.uow.edu.au/student/exams/suppassess/index.html>

System of Referencing Used for Written Work

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>

Submission of Assessments

Refer to the submission requirements under the details of the individual assessments. Students should ensure that they receive a receipt acknowledging submission. Students will be required to produce this in the event that an assessment task is considered to be lost. Students are also expected to keep a copy of all their submitted assessments in the event that re-submission is required.

Assessment Return

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 of Submitted Work

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.

Section C: General Advice

Students should refer to the Faculty of Science, Medicine and Health website for information on policies, learning and support services and other general advice.

Student Consultation and Communication

University staff receive many emails each day. In order to enable them to respond to your emails appropriately and in a timely fashion, students are asked to observe basic requirements of professional communication.

Please ensure that you include your full name and student number and identify your practical class or tutorial group in your email so that staff know who they are communicating with and can follow-up personally where appropriate.

Consider what the communication is about

- Is your question addressed elsewhere (e.g. in the subject outline or, on the eLearning site)?
- Is it something that is better discussed in person or by telephone? This may be the case if your query requires a lengthy response or a dialogue in order to address. If so, see consultation times above and/or schedule an appointment.
- Are you addressing your request to the most appropriate person?

Specific email subject title to enable easy identification of issue

- Identify the subject code of the subject you are enquiring about (as staff may be involved in more than one subject) put this in the email subject heading. Add a brief, specific query reference after the subject code where appropriate.

Professional courtesy

- Address the staff member appropriately by name (and formal title if you do not yet know them).
- Use full words (avoid 'text-speak' abbreviations), correct grammar and correct spelling.
- Be respectful and courteous.
- Allow 3 – 4 working days for a response before following up. If the matter is legitimately urgent, you may wish to try telephoning the staff member (and leaving a voicemail message if necessary) or inquiring at the School Office.

Student 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>

eLearning Space

This subject has materials and activities available via eLearning. To access eLearning you must have a UOW user account name and password, and be enrolled in the subject. eLearning is accessed via SOLS (student online services). Log on to SOLS and then click on the eLearning link in the menu column. For information regarding the eLearning spaces please use the following link: <https://www.uow.edu.au/student/elearning/index.html>

Use of Internet Sources

Students are able to use the Internet to access the most current information on relevant topics and information. Internet sources should only be used after careful critical analysis of the currency of the information, the role and standing of the sponsoring institution, reputation and credentials of the author, the clarity of the information and the extent to which the information can be supported or ratified by other authoritative sources.

Lecture, Tutorial, Laboratory Times

On campus/ Remote

All timetable information is subject to variation. Check latest timetabling information on the 'Current Student' webpage on UOW website or log into SOLS to view your personal timetable prior to attending classes.

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

Timetable information can be accessed from

<https://www.uow.edu.au/student/timetables/>

Key University Dates can be accessed from

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

Extraordinary Changes for the Subject after Release of 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 proposed amendment, prior to the amendment being finalised.

Learning Analytics

Data on student performance and engagement (such as Moodle and University Library usage, task marks, use of SOLS) will be available to the Subject Coordinator 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

<https://uow.edu.au/dvce/lta/analytics/>

The Assessment Quality Cycle

The Assessment Quality Cycle provides a level of assurance that assessment practice across the University is appropriate, consistent and fair.

Assessment Quality Cycle Activities are undertaken to contribute to the continuous improvement of assessment and promote good practices in relation to the:

- a. design of the assessment suite and individual assessment tasks;
- b. marking of individual assessment tasks;
- c. finalisation of subject marks and grades; and
- d. review of the subject prior to subsequent delivery

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

Academic Integrity Policy

The University's policy on acknowledgement practice and plagiarism provides detailed information about how to acknowledge the work of others: <http://www.uow.edu.au/about/policy/UOW058648.html>

"The University's Academic Integrity Policy, Faculty Handbooks 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 or without the explicit permission of the Subject Coordinator. 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."

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 <https://getstarted.uow.edu.au/index.html> 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
Disability	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
Heads of Students	https://www.uow.edu.au/science-medicine-health/contact-us/

Student Support Adviser (SSA)

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 Advisers may be able to help. There are Student Support Advisers available to assist students who are studying at all UOW Campuses and in all UOW Faculties. [Contact details can be found on the UOW website:](https://www.uow.edu.au/student/services/SSA/contact/index.html)

<https://www.uow.edu.au/student/services/SSA/contact/index.html>

The Learning Co-Op

Provides online resources, access to Peer Coaches and Academic Consultants to support your learning at UOW.

Student Advocacy Service

The Student Advocacy Service (SAS) is free, confidential and independent service for all UOW students.

The SAS provides advocacy and referral for a range of academic, procedural and administrative issues. For more information visit: <https://www.uow.edu.au/student/support-services/advocacy/>
<https://www.uow.edu.au/student/learning-co-op/>

Library Services

To save yourself time and enhance your studies: connect with information specialists and resources anytime, anywhere via Ask Us: <https://www.library.uow.edu.au/ask/index.html> or Google "UOW library ask us".

Online – Ask a Librarian	Ask questions and receive a response within 1 business day (Wollongong time)
In person – Book a Librarian	30-minute appointment with an Librarian
Research Consultation Service	1 hour appointment with an information specialist. Available to UOW academics, HDRs, Postgraduate Coursework, Honours and Masters students.
By phone	+61 2 4221 3548

UOW Grade Descriptors

The University of Wollongong Grade Descriptors are general statements that describe student performance at each of the University's grade levels.

Grade	Mark %	Descriptor
High Distinction HD	85-100	<p>A high distinction grade (HD) is awarded for performance that provides evidence of an outstanding level of attainment of the relevant subject learning outcomes, demonstrating the attributes of a distinction grade plus (as applicable):</p> <ul style="list-style-type: none"> • consistent evidence of deep and critical understanding • substantial originality and insight in identifying, generating and communicating competing arguments, perspectives or problem-solving approaches • critical evaluation of problems, their solutions and their implications • use of quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work • creativity in application as appropriate to the discipline • eloquent and sophisticated communication of information and ideas in terms of the conventions of the discipline • consistent application of appropriate skills, techniques and methods with outstanding levels of precision and accuracy • all or almost all answers correct, very few or none incorrect
Distinction D	75-84	<p>A distinction grade (D) is awarded for performance that provides evidence of a superior level of attainment of the relevant subject learning outcomes, demonstrating the attributes of a credit grade plus (as applicable):</p> <ul style="list-style-type: none"> • evidence of integration and evaluation of critical ideas, principles, concepts and/or theories • distinctive insight and ability in applying relevant skills, techniques, methods and/or concepts • demonstration of frequent originality in defining and analysing issues or problems and providing solutions • fluent and thorough communication of information and ideas in terms of the conventions of the discipline • frequent application of appropriate skills, techniques and methods with superior levels of precision and accuracy • most answers correct, few incorrect
Credit C	65-74	<p>A credit grade (C) is awarded for performance that provides evidence of a high level of attainment of the relevant subject learning outcomes, demonstrating the attributes of a pass grade plus (as applicable):</p> <ul style="list-style-type: none"> • evidence of learning that goes beyond replication of content knowledge or skills • demonstration of solid understanding of fundamental concepts in the field of study • demonstration of the ability to apply these concepts in a variety of contexts • use of convincing arguments with appropriate coherent and logical reasoning • clear communication of information and ideas in terms of the conventions of the discipline • regular application of appropriate skills, techniques and methods with high levels of precision and accuracy • many answers correct, some incorrect
Pass P	50-64	<p>A pass grade (P) is awarded for performance that provides evidence of a satisfactory level attainment of the relevant subject learning outcomes, demonstrating (as applicable):</p> <ul style="list-style-type: none"> • knowledge, understanding and application of fundamental concepts of the field of study • use of routine arguments with acceptable reasoning • adequate communication of information and ideas in terms of the conventions of the discipline • ability to apply appropriate skills, techniques and methods with satisfactory levels of precision and accuracy • a combination of correct and incorrect answers
Fail F	<50	<p>A fail grade (F) is given for performance that does not provide sufficient evidence of attainment of the relevant subject learning outcomes.</p>
Technical Fail TF		<p>A technical fail (TF) grade is given when minimum performance level requirements for at least one assessment item in the subject as a whole has not been met despite the student achieving at least a satisfactory level of attainment of the subject learning outcomes.</p>
Satisfactory S		<p>A satisfactory grade (S) is awarded for performance that demonstrates a satisfactory level of attainment of the relevant subject learning outcomes.</p>
Unsatisfactory U		<p>An unsatisfactory grade (U) is awarded for performance that demonstrates an unsatisfactory level of attainment of the relevant subject learning outcomes.</p>
Excellent E		<p>An excellent grade (E) may be awarded, instead of a satisfactory grade (S), within subjects from the Graduate Medicine that have been completed with a consistent pattern of high standard of performance in all aspects of the subject.</p>

More details on UOW Grade descriptors can be found on the following link

<http://www.uow.edu.au/content/groups/public/@web/@gov/documents/doc/uow194941.pdf>

University Policies

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:

<http://www.uow.edu.au/about/policy/UOW058648.html>

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 be found here:

<https://www.uow.edu.au/about/policy/UOW118158.html>

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:

<https://documents.uow.edu.au/about/policy/UOW262890.html>

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:

<http://www.uow.edu.au/research/ethics/human/index.html>

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:

<http://www.uow.edu.au/about/policy/alphalisting/UOW140611.html>

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 <http://www.uow.edu.au/about/policy/UOW058689.html>

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:

<http://www.uow.edu.au/about/policy/alphalisting/UOW222905.html>

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:

<http://www.uow.edu.au/about/policy/UOW058666.html>

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: <http://www.uow.edu.au/about/policy/alphalisting/UOW222906.html>

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:

<http://www.uow.edu.au/about/policy/UOW058653.html>

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. The Policy can be found at:

<http://www.uow.edu.au/about/policy/UOW058721.html>

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:

<http://www.uow.edu.au/about/policy/UOW058690.html>

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.

<http://www.uow.edu.au/about/policy/UOW058723.html>

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>

Version Control Table

Version Control	Release Date	Author/Reviewer	Approved By	Amendment
2	20210325	Heath Ecroyd – Subject Coordinator	Sonia Lanzi – Learning and Teaching officer	Amend exam information
1	20210223	Heath Ecroyd – Subject Coordinator	Sonia Lanzi – Learning and Teaching officer	FINAL BIOL213 Autumn 2021 Subject Outline