



School of Biological Sciences

BIOL362: Ecophysiology

Subject Outline

Autumn 2018
On-Campus
Wollongong

Subject Information

Credit Points: 6
Pre-requisite(s): BIOL103 and BIOL105
Co-requisite(s): Nil
Restrictions: Nil
Contact Hours: 2h lectures per week, 2h practical (most weeks), 1h tutorial (most weeks)

Subject Contacts

Subject Coordinator/Lecturer

Name:	Dr Melinda Waterman
Location:	Building 15, Room G15
Telephone:	61 2 4221 5373
Email:	melindaw@uow.edu.au
Consultation mode and times:	Email for appointment

Lecturer

Name:	Dr Bethany Hoye
Location:	Building 35, Room 107
Telephone:	+61 2 4252 8209
Email:	bhoye@uow.edu.au
Consultation mode and times:	Email for appointment

Student Support and Advice

For general enquiries please contact StudentHub 41:

Location: 41.138B
Telephone: 61 2 4221 3492
Email: smah-students@uow.edu.au

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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 physiological and biochemical responses of animals and plants to environmental variation;
2. Identify how marine, aquatic & terrestrial environments select for biochemical and physiological adaptations in animals and plants;
3. Explain aspects of the evolution of biochemical and physiological processes in organisms;
4. Describe the influence of size and phylogeny in animal energetics;
5. Design experiments to answer specific physiological questions;
6. Analyse physiological data in an appropriate manner and present these effectively in graphical and written formats;
7. Apply computers for data logging and analysis;
8. Demonstrate accuracy, precision, honesty and respect for organisms under study;
9. Demonstrate safe practices and welfare of others in the lab (OH&S awareness);
10. Evaluate information sources;
11. Demonstrate ability to work in a group towards a common goal.

Subject Description

Physiological and biochemical characterisation of organisms in relation to size, metabolic intensity, and response to environmental variables. Physiological responses of plants and animals to variations in light intensity, spectral quality, temperature, gas composition and pressure. Evolution of aerobic metabolism, aerobic capacity and endothermy. Physiological processes associated with phenotypic plasticity and adaptive traits. Physiological correlates of life-history variation. This subject may involve the use of animals, animal tissues or animal-derived products in order to achieve specific learning objectives.

Readings, References and Materials

Textbooks

Nil

Prescribed Readings (includes eReadings)

Nil

Materials

Dissection Kit
Laboratory Coat

Recommended Readings

There are a number of text chapters and articles that are required reading for this subject (see below), but students are not expected to purchase these. They are available to students through the library on the subjects eLearning site. The appropriate sections will be highlighted during classes.

Recommended readings are not intended as an exhaustive list, students should use the Library catalogue and databases to locate additional resources. You are expected to use more than these books and to find and use both review articles as well as the primary scientific literature (i.e. scientific research papers) in your assignments. A reference list of articles related to each practical will be made available through eLearning. You should also use the library database searches to find information on your research paper topic and current literature related to it.

Library: <http://www.library.uow.edu.au/>

Ask our friendly librarians for help with your research, in the library or on line:

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

Reference Texts:

- Barboza, P.S., Parker, K., L. & Hume, I.D. (2009) Integrative Wildlife Nutrition. Springer-Verlag, Berlin.
- Buchanan, B.B., Gruissem, W. & Jones, R.L. (eds.) (2015) Biochemistry and molecular biology of plants. American Society of Plant Physiologists, Rockville, MD:.
- Hochacka, P.W. & Somero G.N. (2002) Biochemical adaptation: mechanism and process in physiological evolution. Oxford University Press, New York.
- Hopkins, W.G. (2008) Introduction to Plant Physiology 4th Ed. Wiley & Sons, New York.
- Lambers, H., Chapin, F.S. III, Pons, T.L. (2008) Plant Physiological Ecology 2nd Ed. Springer, New York.
- Moyes, C.D. and Schulte, P.M. (2008) Principles of animal physiology. 2nd Ed. Benjamin Cummings, London.
- Randall, D., Burggern, W. & French, K. (2002) Eckert Animal Physiology: mechanisms and adaptations. 5th Ed. W.H. Freeman and Co., New York, USA.
- Robinson, S.A. Russell, A.W. & Netherwood, G.M.A. (2002) Photosynthesis in silico. (CD) UoW.
- Schmidt-Nielsen, K. (1997) Animal physiology: adaptation and environment. 5th Ed. Cambridge University Press, New York.
- Taiz, L. and E. Zeiger. (2015) Plant Physiology and Development. 6th Ed. Benjamin/Cummings, London.
- Withers, P.C. (1992) Comparative animal physiology. Saunders College Publ., Fort Worth.

General Comparative Physiology Books:

- Gordon M.S. et al. (1983) Animal physiology: principles and adaptations. 4th edition, MacMillan New York.
- Schmidt-Nielsen K. (1990) Animal physiology: adaptation and environment. 4th edition, Cambridge Uni. Press.
- Eckert R. D. Randall & G. Augustine (1988) Animal physiology: mechanisms and adaptations. 3rd edition. W.H. Freeman & Co., New York.
- Hume, I.D. (1999) Marsupial Nutrition. Cambridge University Press, Cambridge, UK.
- Hill R.W. (1976) Comparative physiology of animals: an environmental approach. Harper & Row, N.Y.
- Prosser C.L. (ed) (1991) Environmental and metabolic animal physiology. Wiley-Liss, New York.
- Prosser C.L. (ed.) (1991) Neural and integrative animal physiology. Wiley-Liss, New York.
- Taylor, C.R., K. Johansen, and L. Bolis, eds. (1982). A companion to animal physiology. Cambridge Univ. Press,

More Specialised Books:

- Campbell G.S. (1977) An introduction to environmental biophysics. Springer-Verlag, New York.
- Kooyman, G. L. (1989) Diverse divers: physiology and behavior. Springer Verlag.
- Monteith, J.L. and Unsworth, M.H. (1990) Principles of environmental physics. Butterworth-Heinemann, Oxford, UK.
- Walker, David, (1992) Energy, Plants and Man. Oxygraphics, Brighton.

Writing about Biology: These books will help you to write better reports etc.

- Knisely, K. (2013). A Student Handbook for Writing in Biology. 4th edition. (Sinauer/ W.H. Freeman and Company, Sunderland, USA.).
- Pechenik, J. A. (2016). A Short Guide to Writing about Biology. 9th edition. (Pearson Longman, New York, USA.).

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

New 6cp version of 8cp BIOL332

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.

Plants, pigments and light
Gas exchange & measuring photosynthesis
Do plants need sunscreens
Excess light and Plants in the understorey (sunflecks)
Plants in warm places (C4)
Plants in hot, dry places (CAM)
Plants and temperature stress
Plants in a changing climate
Plants, UV radiation & the ozone hole
Protective pigments in plants
Physiological Scaling
Animal Energetics and Nutrition
Thermoregulation
Salt and Water Balance
Respiration and Circulation
Hormones
Sensory Physiology
Principles of locomotion
Phenotypic plasticity
Conservation Physiology

A detailed timetable will be provided to students at the commencement of the subject, both during the introductory lecture and on eLearning.

Section B: Assessment

Assessment Summary

Assessment Item	Form of Assessment	Due Date	Return/Feedback Due date	Weighting
Assessment 1	Mid-Session Quiz	10 th April	Within 21 days of due date	20%
Assessment 2	Group Research Report 1	23 rd April		20%
Assessment 3	Group Research Report 2	28 th May		20%
Assessment 4	Final Examination	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	Mid-Session Quiz
Due date	10 th April (during lecture time)
Weighting	20%
Submission	Submit a hardcopy of your assessment to your lecturer in class.
Type of Collaboration	Individual Assessment
Length	90 min
Details	Part A: Essay type questions answer 1/2. Worth 9 marks each. Part B: Short answer questions answer 4/5. Worth 4 marks each.
Style and format	In-class test
Subject Learning Outcomes	1, 2, 3, 5, 7
Marking Criteria	Accuracy of answers

Assessment 2	Group Research Report 1
Due date	23 rd April 11:55 pm (via eLearning)
Weighting	20%
Submission	Submit an electronic copy of your assessment via upload to eLearning
Type of Collaboration	Group Project
Length	TBA
Style and format	Report
Turnitin	This assessment task has been set up to be checked by Turnitin, a tool for checking if it has unreferenced content. You can submit your assessment task to Turnitin prior to the due date and Turnitin will give you an originality report. You can then make any changes that may be required and re-submit your final version by the due date.
Subject Learning Outcomes	1, 2, 3, 5, 6, 7, 10, 11
Marking Criteria	The marking criteria will be made available on your eLearning site by week 5 of session.

Assessment 3	Group Research Report 2
Due date	28 th May 11:55 pm (via eLearning)
Weighting	20%
Submission	Submit an electronic copy of your assessment via upload to eLearning
Type of Collaboration	Group Project
Length	TBA
Style and format	Report
Turnitin	This assessment task has been set up to be checked by Turnitin, a tool for checking if it has unreferenced content. You can submit your assessment task to Turnitin prior to the due date and Turnitin will give you an originality report. You can then make any changes that may be required and re-submit your final version by the due date.
Subject Learning Outcomes	1, 2, 3, 5, 6, 7, 10, 11
Marking Criteria	The marking criteria will be made available on your eLearning site by week 10 of session.

Assessment 4	Final Examination
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	See below
Details	Theory Part A: Essay type questions answer 1/2. Worth 8 marks each. Theory Part B: Short answer questions answer 4/5. Worth 4 marks each. Practical Part C: Answer all 4 short answer questions. Worth 4 marks each.
Style and format	Final Exam
Subject Learning Outcomes	1, 2, 3, 4, 5, 6, 7
Marking Criteria	Accuracy of answers

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:

- **Obtain a grade of 45% or higher on the final examination**

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 tutorials, practicals, seminars and/or simulations is not compulsory but is strongly recommended.

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/UOW058609.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. 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 a piece of work 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 a report 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.

Supplementary 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.

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.

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.

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

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

<http://www.uow.edu.au/dvca/bala/analytics/index.html>

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 full policy on Academic Integrity Policy is found in the Policy Directory on the UOW website.

"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 Academic Complaints Policy (Coursework or Higher Degree Research)

In accordance with the Coursework Student Academic Complaints 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. Refer to the Coursework Student Academic Complaints Policy for further information.

Student Support Services and Facilities

Students can access information on student support services and facilities at the following link. This includes information on “Academic Support”, “Starting at University”, “Help at University” as well as information and support on “Careers and Jobs”. <http://www.uow.edu.au/student/services/index.html>

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

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 School of 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

Students should be familiar with the following University policies:

- a. Code of Practice – Teaching and Assessment
<http://www.uow.edu.au/about/policy/UOW058666.html>
- b. Code of Practice – Research, where relevant
<http://www.uow.edu.au/about/policy/UOW058663.html>
- c. Code of Practice – Honours, where relevant
<http://www.uow.edu.au/about/policy/UOW058661.html>
- d. Student Charter
<http://www.uow.edu.au/student/charter/index.html>
- e. Code of Practice – Student Professional Experience, where relevant
<http://www.uow.edu.au/about/policy/UOW058662.html>
- f. Academic Integrity and Plagiarism Policy
<http://www.uow.edu.au/about/policy/UOW058648.html>
- g. Student Academic Consideration Policy
<http://www.uow.edu.au/about/policy/UOW058721.html>
- h. Course Progress Policy
<http://www.uow.edu.au/about/policy/UOW058679.html>
- i. Academic Complaints Policy (Coursework and Honours Students)
<http://www.uow.edu.au/about/policy/UOW058653.html>
- j. Inclusive Language Policy
<http://www.uow.edu.au/about/policy/alphalisting/UOW140611.html>
- k. Workplace Health and Safety, where relevant
<http://staff.uow.edu.au/ohs/index.html>
- l. Intellectual Property Policy
<http://www.uow.edu.au/about/policy/UOW058689.html>
- m. IP Student Assessment of Intellectual Property Policy, where relevant
<http://www.uow.edu.au/about/policy/UOW058690.html>
- n. Policy on Ethical Objection by Students to the Use of Animal and Animal Products in Coursework Subjects, where relevant
<http://www.uow.edu.au/about/policy/UOW058708.html>
- o. Human Research Ethics Guidelines, where relevant
<http://www.uow.edu.au/research/ethics/human/index.html>
- p. Animal Research Guidelines, where relevant
<http://www.uow.edu.au/research/ethics/UOW009373.html>
- q. Student Conduct Rules and accompanying Procedures or Research Misconduct Policy for research students
<http://www.uow.edu.au/about/policy/rules/UOW060095.html>

Version Control Table

Version Control	Release Date	Author/Reviewer	Approved By	Amendment
1	20180220	Melinda Waterman – Subject Coordinator	Sonia Losinno – Learning and Teaching Officer	Final BIOL362 Autumn 2018 subject outline