



# BIOL386

## Biology Special Interest Project

S1 Day 2019

*Dept of Biological Sciences*

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#### **Disclaimer**

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## General Information

Unit convenor and teaching staff

Kathryn Korbel

[kathryn.korbel@mq.edu.au](mailto:kathryn.korbel@mq.edu.au)

Kate Barry

[kate.barry@mq.edu.au](mailto:kate.barry@mq.edu.au)

Credit points

3

Prerequisites

(39cp at 100 level or above) and permission by special approval

Corequisites

Co-badged status

Unit description

Through this PACE unit, high achieving students may be permitted to undertake an internship with a research facility in an area of biology that is of special interest, and in response to the research needs of that facility. The main objective of the unit is to expose students to the process of scientific research, either within the university or with an external partner, in the broad area of biological sciences including, but not limited to, the fields of marine and terrestrial sciences, ecology, molecular biology, physiology and behavioural biology. Prior to admission it is necessary for students to initiate contact with the partner organisation to establish a relevant project and then contact the unit convenor to advise of their proposed project and internal academic supervisor. Students are required to attend several workshops as well as undertake 80 hours of research within their host research team. Assessments have been designed to provide students with an understanding of the professional skills required to pursue a career in research.

## Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

## Learning Outcomes

On successful completion of this unit, you will be able to:

Understand your roles relative to WHS and apply this to complete WHS requirements

Interact with research group members and develop peer networking skills

Communicate research in written form

Evaluate primary scientific literature

Develop and competently use practical skills in laboratory and/or field methods to investigate a research question

Formulate an original research question and develop a suitable experimental design

## General Assessment Information

iLearn and email will be the principle method of communication in this subject. *How do you log in?* The URL for the iLearn is: <https://ilearn.mq.edu.au/>. Your user name is your student number and the password your oneID. For further details go to [http://mq.edu.au/iLearn/student\\_info/index.htm](http://mq.edu.au/iLearn/student_info/index.htm). If you are having trouble accessing your online unit due to a disability or health condition, please go to the Student Services Website at <http://sss.mq.edu.au/equity/about> for information on how to get assistance. If you cannot log in after ensuring you have entered your username and password correctly, you should contact Student IT Help, Phone: (02) 9850 4357 (in Sydney) or 1 800 063 191 (outside Sydney).

All assessment tasks are to be submitted via turnit in on iLearn.

The deadlines for assignments are not negotiable. In the case of disruption, supporting documents (medical certificate or documents outlining other serious, extenuating circumstances) need to be submitted with an application for disruption to study via ask.mq. If a disruption event does occur ensure that you also notify supervisor and unit convenor as soon as possible. Late assessments will result in a penalty of 10% marks loss per day.

**Policies Macquarie has policies and procedures in the area of learning and teaching.**

**Approved policies and associated guidelines and procedures can be found at Policy**

**Central:** <http://www.mq.edu.au/policy/>. There you will find the University's policy and associated procedures on:

- Assessment
- Academic Honesty (plagiarism)
- Special consideration

**The penalties imposed by the University for plagiarism are serious. ANY evidence of plagiarism WILL be dealt with following University policy. Penalties range from a loss of marks to awarding of a zero depending on the level of plagiarism. Serious offences may include expulsion from the University. All plagiarism offences will be reported to Faculty disciplinary committee.**

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#">Work Health and Safety summary</a>	5%	No	week 4

Name	Weighting	Hurdle	Due
<u>Research Checklist</u>	5%	No	Week 4
<u>Student proposal seminar</u>	15%	No	Week 6- Tuesday
<u>Scientific Research Report</u>	30%	No	Week 12
<u>Draft introduction and methods</u>	15%	No	Week 7
<u>Supervisor report</u>	25%	No	Week 13
<u>Self-reflection</u>	5%	No	Monday Weeks 6, 10, 13

## Work Health and Safety summary

Due: **week 4**

Weighting: **5%**

Provided documentation verifying you have completed all required inductions/ risk assessments / ethics / training for the project

On successful completion you will be able to:

- Understand your roles relative to WHS and apply this to complete WHS requirements

## Research Checklist

Due: **Week 4**

Weighting: **5%**

**For this assessment you will prepare a checklist of skills that you wish to develop under this project.**

On successful completion you will be able to:

- Interact with research group members and develop peer networking skills
- Develop and competently use practical skills in laboratory and/or field methods to investigate a research question
- Formulate an original research question and develop a suitable experimental design

## Student proposal seminar

Due: **Week 6- Tuesday**

Weighting: **15%**

You are to present a research proposal seminar of 10 minutes duration outlining background to your research project, your research question/idea, and the experimental approach you intend to use..

On successful completion you will be able to:

- Evaluate primary scientific literature
- Formulate an original research question and develop a suitable experimental design

## Scientific Research Report

Due: **Week 12**

Weighting: **30%**

You are to submit a scientific paper based on the research project. The overall word limit is 5000 words (excluding references).

On successful completion you will be able to:

- Communicate research in written form
- Evaluate primary scientific literature

## Draft introduction and methods

Due: **Week 7**

Weighting: **15%**

This assessment task requires a draft version of both the introduction and the methods section of the paper, written in the format of a scientific journal of choice. Word count is 1000 words

On successful completion you will be able to:

- Communicate research in written form
- Evaluate primary scientific literature
- Formulate an original research question and develop a suitable experimental design

## Supervisor report

Due: **Week 13**

Weighting: **25%**

**Your placement supervisors will provide a report to the unit convenors.**

On successful completion you will be able to:

- Interact with research group members and develop peer networking skills
- Develop and competently use practical skills in laboratory and/or field methods to investigate a research question

## Self-reflection

Due: **Monday Weeks 6, 10, 13**

Weighting: **5%**

Students are required to participate in the iLearn reflective learning discussion forum. You may respond with photos, illustrations, videos or written responses, as appropriate to the question. Your response should be around 200- 300 words if you choose a written response. These three items combine to form 5% of your overall mark

On successful completion you will be able to:

- Communicate research in written form

## Delivery and Resources

**Workshop/Tutorial #1:** Week 1 Tuesday 26th February 11:00-12:00 (location to be advised- please check iLearn). In this session we will explain unit requirements for students and supervisors for BIOL326 and discuss WHS and other assessment requirements.

**Online lecture week 2-** There will be a 1 hour on-line lecture on oral presentations. It is expected that you complete this lecture in week 3, in preparation for your assessment item in week 6.

**Online lecture week 4-** There will be a 2 hour lecture provided on iLearn to be completed this week. This lecture will cover writing skills and essential elements of scientific writing. You will be required to complete several tasks relating to this

**Workshop/student presentations #2:** Week 6 Tuesday 2nd April 10:00-12:00 – location to be advised- please check iLearn. In this session students will present their research proposal seminars to supervisors and other students. At the end of these there will be a short tutorial on writing.

**Optional drop-in tutorial #3. Week 10, Monday:** This gives students additional information on how to write scientific reports and also an opportunity to trouble shoot any issues that have occurred with the projects. Please contact the course convener to make an appointment for this.

**Workshop #4; Week 13.** This tutorial is designed to engage the student's reflective learning and enable the provision of feedback to the course convenor,

## Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central\)](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)

- [Grade Appeal Policy](#)
- [Complaint Management Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#) (**Note:** *The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.*)

Undergraduate students seeking more policy resources can visit the [Student Policy Gateway](https://students.mq.edu.au/support/study/student-policy-gateway) (<https://students.mq.edu.au/support/study/student-policy-gateway>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit [Policy Central](http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central>).

## Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/study/getting-started/student-conduct>

## Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit [ask.mq.edu.au](http://ask.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

## Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

## Learning Skills

Learning Skills ([mq.edu.au/learningskills](http://mq.edu.au/learningskills)) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

## Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

## Student Enquiries

For all student enquiries, visit Student Connect at [ask.mq.edu.au](http://ask.mq.edu.au)

If you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

## IT Help

For help with University computer systems and technology, visit [http://www.mq.edu.au/about\\_us/offices\\_and\\_units/information\\_technology/help/](http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/).

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

## Graduate Capabilities

### Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

#### Assessment tasks

- Scientific Research Report
- Draft introduction and methods

### Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

#### Learning outcomes

- Understand your roles relative to WHS and apply this to complete WHS requirements
- Interact with research group members and develop peer networking skills
- Develop and competently use practical skills in laboratory and/or field methods to investigate a research question

#### Assessment tasks

- Research Checklist
- Supervisor report
- Self-reflection

### Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue



knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

### **Assessment task**

- Supervisor report

## **Discipline Specific Knowledge and Skills**

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

### **Learning outcomes**

- Communicate research in written form
- Evaluate primary scientific literature
- Develop and competently use practical skills in laboratory and/or field methods to investigate a research question
- Formulate an original research question and develop a suitable experimental design

### **Assessment tasks**

- Research Checklist
- Scientific Research Report
- Draft introduction and methods

## **Critical, Analytical and Integrative Thinking**

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

### **Learning outcomes**

- Evaluate primary scientific literature

- Develop and competently use practical skills in laboratory and/or field methods to investigate a research question
- Formulate an original research question and develop a suitable experimental design

## **Assessment tasks**

- Research Checklist
- Student proposal seminar
- Scientific Research Report
- Draft introduction and methods
- Self-reflection

## **Problem Solving and Research Capability**

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

## **Learning outcomes**

- Evaluate primary scientific literature
- Develop and competently use practical skills in laboratory and/or field methods to investigate a research question
- Formulate an original research question and develop a suitable experimental design

## **Assessment tasks**

- Student proposal seminar
- Scientific Research Report

## **Effective Communication**

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

## **Learning outcomes**

- Interact with research group members and develop peer networking skills
- Communicate research in written form

## Assessment tasks

- Student proposal seminar
- Scientific Research Report
- Draft introduction and methods
- Supervisor report
- Self-reflection

## Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation's historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

## Assessment tasks

- Work Health and Safety summary
- Supervisor report

## Socially and Environmentally Active and Responsible

We want our graduates to be aware of and have respect for self and others; to be able to work with others as a leader and a team player; to have a sense of connectedness with others and country; and to have a sense of mutual obligation. Our graduates should be informed and active participants in moving society towards sustainability.

This graduate capability is supported by:

## Learning outcome

- Understand your roles relative to WHS and apply this to complete WHS requirements

## Assessment task

- Supervisor report