



# BIOL388

## Advanced Science (Biology) 3

FY1 Day 2019

*Dept of Biological Sciences*

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## General Information

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Credit points

3

Prerequisites

39cp including (BIOL188 and (3cp(D) of BIOL units at 200 level) and (3cp(D) of BIOL or GEOS units at 200 level)) and admission to BAdvSc and permission by special approval

Corequisites

Co-badged status

Unit description

This tutorial unit meets for one hour weekly to discuss hot topics and recent research advances in biology with a variety of scientists from a diverse background. Students undertake a research internship in biology and produce a report (in scientific format) on their findings at the annual conference.

## 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:

Solve problems in a real-world context using discipline-specific knowledge and skills acquired throughout the Biology program.

Employ the tools, methodologies, language and conventions of Biology to develop and test new ideas

Learn in a responsible, critically-reflective, self-directed and self-motivated manner

Work effectively and ethically in a multifaceted scientific environment

Summarise and effectively communicate scientific ideas to different audiences

Map discipline-specific knowledge, ethics, negotiation skills, cross-cultural and interpersonal skills to the requirements of a range of future career paths

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#">Weekly Discussion</a>	0%	No	Weekly
<a href="#">Group project</a>	0%	No	Week 8 Sem1
<a href="#">Internship</a>	0%	No	May
<a href="#">Oral Presentation</a>	0%	No	Week 11 Sem 2
<a href="#">Participation</a>	100%	No	NA

### Weekly Discussion

Due: **Weekly**

Weighting: **0%**

**Assigned readings; Blog response to the questions related to each week's topic. Participation in ensuing discussions.**

On successful completion you will be able to:

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## Group project

Due: **Week 8 Sem1**

Weighting: **0%**

**Assessed via (a) contributions to the group (b) observations of your contribution by Staff and Department mentors during the project**

On successful completion you will be able to:

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- Learn in a responsible, critically-reflective, self-directed and self-motivated manner
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## Internship

Due: **May**

Weighting: **0%**

**Experience in the conduct of a research project and in working within a collaborative group. Assessed via report from lab supervisor. 60 Hours of lab placement.**

**Proposals due by May, Reports due in October**

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## Oral Presentation

Due: **Week 11 Sem 2**

Weighting: **0%**

### **12 min exposition of the research topic and summary of what was learned**

On successful completion you will be able to:

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- Summarise and effectively communicate scientific ideas to different audiences

## **Participation**

Due: **NA**

Weighting: **100%**

This is a Pass/Fail unit. Passing requires satisfactory participation in all aspects of the unit: Weekly Meetings, Blogs, Internship, Group project and Oral reporting. A roll will be taken during group meetings and at least 85% of the meetings must be attended

On successful completion you will be able to:

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## **Delivery and Resources**

iLearn Page available where details of readings and topics will be posted. Blogs need to be uploaded via iLearn.

## **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:

### Learning outcomes

- Employ the tools, methodologies, language and conventions of Biology to develop and test new ideas
- Work effectively and ethically in a multifaceted scientific environment
- Summarise and effectively communicate scientific ideas to different audiences
- Map discipline-specific knowledge, ethics, negotiation skills, cross-cultural and interpersonal skills to the requirements of a range of future career paths

### Assessment tasks

- Weekly Discussion
- Group project
- Internship
- Oral Presentation
- Participation

### 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

- Solve problems in a real-world context using discipline-specific knowledge and skills acquired throughout the Biology program.
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## 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:

## Learning outcomes

- Solve problems in a real-world context using discipline-specific knowledge and skills acquired throughout the Biology program.
- Employ the tools, methodologies, language and conventions of Biology to develop and test new ideas
- Learn in a responsible, critically-reflective, self-directed and self-motivated manner
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- Summarise and effectively communicate scientific ideas to different audiences
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## Assessment tasks

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- Group project
- Internship
- Oral Presentation
- Participation

## 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

- Solve problems in a real-world context using discipline-specific knowledge and skills acquired throughout the Biology program.
- Employ the tools, methodologies, language and conventions of Biology to develop and test new ideas
- Learn in a responsible, critically-reflective, self-directed and self-motivated manner
- Work effectively and ethically in a multifaceted scientific environment
- Summarise and effectively communicate scientific ideas to different audiences
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## Assessment tasks

- Weekly Discussion
- Group project
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- Oral Presentation
- Participation

## 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**

- Solve problems in a real-world context using discipline-specific knowledge and skills acquired throughout the Biology program.
- Employ the tools, methodologies, language and conventions of Biology to develop and test new ideas
- Learn in a responsible, critically-reflective, self-directed and self-motivated manner
- Work effectively and ethically in a multifaceted scientific environment
- Summarise and effectively communicate scientific ideas to different audiences
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## **Assessment tasks**

- Weekly Discussion
- Group project
- Internship
- Oral Presentation
- Participation

## **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**

- Solve problems in a real-world context using discipline-specific knowledge and skills acquired throughout the Biology program.
- Employ the tools, methodologies, language and conventions of Biology to develop and test new ideas
- Learn in a responsible, critically-reflective, self-directed and self-motivated manner
- Work effectively and ethically in a multifaceted scientific environment
- Summarise and effectively communicate scientific ideas to different audiences

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## **Assessment tasks**

- Weekly Discussion
- Group project
- Internship
- Oral Presentation
- Participation

## **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**

- Employ the tools, methodologies, language and conventions of Biology to develop and test new ideas
- Summarise and effectively communicate scientific ideas to different audiences
- Map discipline-specific knowledge, ethics, negotiation skills, cross-cultural and interpersonal skills to the requirements of a range of future career paths

## **Assessment tasks**

- Weekly Discussion
- Group project
- Internship
- Oral Presentation
- Participation

## **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:

## **Learning outcomes**

- Employ the tools, methodologies, language and conventions of Biology to develop and test new ideas
- Learn in a responsible, critically-reflective, self-directed and self-motivated manner
- Summarise and effectively communicate scientific ideas to different audiences
- Map discipline-specific knowledge, ethics, negotiation skills, cross-cultural and interpersonal skills to the requirements of a range of future career paths

## **Assessment tasks**

- Weekly Discussion
- Group project
- Internship
- Oral Presentation
- Participation

## **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 outcomes**

- Employ the tools, methodologies, language and conventions of Biology to develop and test new ideas
- Learn in a responsible, critically-reflective, self-directed and self-motivated manner
- Summarise and effectively communicate scientific ideas to different audiences
- Map discipline-specific knowledge, ethics, negotiation skills, cross-cultural and interpersonal skills to the requirements of a range of future career paths

## **Assessment tasks**

- Weekly Discussion
- Group project
- Internship
- Oral Presentation
- Participation