BIOL8600

Biology Research Experience

Session 2, Weekday attendance, North Ryde 2020

Department of Biological Sciences

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Notice

As part of Phase 3 of our return to campus plan, most units will now run tutorials, seminars and ot her small group learning activities on campus for the second half-year, while keeping an online ver sion available for those students unable to return or those who choose to continue their studies onli ne.

To check the availability of face-to-face and onlin e activities for your unit, please go to timetable vi ewer. To check detailed information on unit asses sments visit your unit's iLearn space or consult yo ur unit convenor.

General Information

Unit convenor and teaching staff
Anthony Chariton
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Adam Stow
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Credit points
10

Prerequisites
(20cp from (BIOL8610 or BIOL861) or BIOL873 or (BIOL8740 or BIOL874) or (BIOL8750 or BIOL875) or (BIOL8770 or BIOL877) or (BIOL8870 or BIOL887)) and permission by special approval

Corequisites

Co-badged status

Unit description
This unit enables the student to acquire biological research experience by undertaking a small independent research project under academic supervision. The research topic may be flexible, but in most cases it will be aligned with the objectives of an academic staff member involved in research. This unit can be combined with BIOL8710 Conservation in Practice for a more extended experience. Students are strongly encouraged to organise their project and supervisor well before commencing this unit.

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:

ULO1: Develop a testable biological hypothesis by reviewing and synthesizing previous research in the scientific literature.

ULO2: Plan and implement a research project to address this hypothesis using principles of experimental design and appropriate data collection methods for measuring and assessing biological processes.

ULO3: Demonstrate effective time and project management skills by working independently to collect scientific data and by documenting these efforts using a project notebook.
ULO4: Communicate research findings to a scientific audience in written form by constructing a coherent, well structured document.

Assessment Tasks

Name	Weighting	Hurdle	Due
Project proposal	20%	No	17/8/2020
Scientific Report	30%	No	9/11/2020
Supervisor Report	20%	No	16/11/2020
Introduction and Methods	30%	No	14/9/2020

Project proposal

Assessment Type [1]: Design Task
Indicative Time on Task [2]: 10 hours
Due: **17/8/2020**
Weighting: **20%**

Write a short proposal explaining the work that you will undertake

On successful completion you will be able to:

- Develop a testable biological hypothesis by reviewing and synthesizing previous research in the scientific literature.
- Plan and implement a research project to address this hypothesis using principles of experimental design and appropriate data collection methods for measuring and assessing biological processes.
- Demonstrate effective time and project management skills by working independently to collect scientific data and by documenting these efforts using a project notebook.

Scientific Report

Assessment Type [1]: Report
Indicative Time on Task [2]: 20 hours
Due: **9/11/2020**
Weighting: **30%**

Complete the Full Scientific Report in the form of a Scientific Paper

On successful completion you will be able to:

- Develop a testable biological hypothesis by reviewing and synthesizing previous research in the scientific literature.
- Plan and implement a research project to address this hypothesis using principles of experimental design and appropriate data collection methods for measuring and assessing biological processes.
- Demonstrate effective time and project management skills by working independently to collect scientific data and by documenting these efforts using a project notebook.
- Communicate research findings to a scientific audience in written form by constructing a coherent, well structured document.

Supervisor Report

Assessment Type [1]: Performance
Indicative Time on Task [2]: 0 hours
Due: **16/11/2020**
Weighting: **20%**

Supervisors will provide a report on student performance, progress, abilities acquired and attendance throughout placement.

On successful completion you will be able to:

- Communicate research findings to a scientific audience in written form by constructing a coherent, well structured document.

Introduction and Methods

Assessment Type [1]: Report
Indicative Time on Task [2]: 10 hours
Due: **14/9/2020**
Weighting: **30%**

Write the Introduction to the final report describing what is currently known in the area of your project and how your work will contribute to further understanding in this area, and outline the Methods used (this forms part of the major report)

On successful completion you will be able to:

- Develop a testable biological hypothesis by reviewing and synthesizing previous research in the scientific literature.
- Plan and implement a research project to address this hypothesis using principles of experimental design and appropriate data collection methods for measuring and

assessing biological processes.
- Demonstrate effective time and project management skills by working independently to collect scientific data and by documenting these efforts using a project notebook.
- Communicate research findings to a scientific audience in written form by constructing a coherent, well structured document.

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[1] If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the Writing Centre for academic skills support.

[2] Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

There are no lectures or tutorials for this unit. Students can work on a project with a university academic or PhD student or externally. However, it is the student's responsibility to find a project. Some potential projects will be advertised on iLearn. Projects need to be discrete pieces of research which can be written up as a paper.

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). 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.)*

Students seeking more policy resources can visit the 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 (https://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 or if you are a Global MBA student contact 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) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- Getting help with your assignment
- Workshops
- StudyWise
- Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

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

If you are a Global MBA student contact 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/.

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.