



GEOS8822

Advanced Field and Laboratory Techniques

Session 2, Special circumstance 2020

Department of Earth and Environmental 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 other small group learning activities on campus for the second half-year, while keeping an online version available for those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face and online activities for your unit, please go to [timetable viewer](#). To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

General Information

Unit convenor and teaching staff

Heather Handley

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Credit points

10

Prerequisites

30cp in GEOS units at 3000 level

Corequisites

Co-badged status

GEOS7922

Unit description

This foundation unit provides opportunities for preparative training and hands-on experience in learning cutting-edge field and/or laboratory techniques in Earth and Environmental Sciences. Generic research skills developed include research planning, time management, budgeting, note-taking, sketching and formulation of a field sampling or laboratory investigation campaign. Students will explore advanced analytical techniques that may include using high-end equipment and/or completing a field trip that develops field methods, such as geomorphological, soil or outcrop analysis, or terrestrial or marine sample collection. Students will gain a highly tailored experience of advanced techniques relevant to their specific research interests in consultation with a research group or research mentor. Students will demonstrate mastery of new skills through production of a field or laboratory report and associated activities.

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: Demonstrate knowledge of research methods and advanced analytical techniques through the design and implementation of a project plan to answer a specific research question

ULO2: Effectively communicate the design of a field sampling or laboratory investigation

to your peers and project-relevant academics using verbal and written methods

ULO3: Work professionally with a research supervisor, and other research collaborators as required to plan and undertake a research project.

ULO4: Appropriately record research findings and utilise these records to produce a research report and reflect on initial project design.

Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Reflection Task</u>	10%	No	3/11/2020
<u>Project Plan Presentation</u>	10%	No	18/8/2020
<u>Lab/Field Notebook</u>	30%	No	20/10/2020
<u>Project Report</u>	50%	No	30/10/2020

Reflection Task

Assessment Type ¹: Reflective Writing

Indicative Time on Task ²: 5 hours

Due: **3/11/2020**

Weighting: **10%**

Written reflection on initial individual project plan and recommendations in planning and undertaking research projects to avoid potential pitfalls based on group discussion and reflection.

On successful completion you will be able to:

- Appropriately record research findings and utilise these records to produce a research report and reflect on initial project design.

Project Plan Presentation

Assessment Type ¹: Presentation

Indicative Time on Task ²: 10 hours

Due: **18/8/2020**

Weighting: **10%**

A 10 minute presentation and 5 minute Q&A on the proposed project plan including methods, budget and timeline

On successful completion you will be able to:

- Demonstrate knowledge of research methods and advanced analytical techniques through the design and implementation of a project plan to answer a specific research question
- Effectively communicate the design of a field sampling or laboratory investigation to your peers and project-relevant academics using verbal and written methods

Lab/Field Notebook

Assessment Type ¹: Lab book

Indicative Time on Task ²: 0 hours

Due: **20/10/2020**

Weighting: **30%**

Record of field and/or laboratory activities including reflections on limitations and assumptions of the project design. May contain raw, observational data acquired in the field or in a practical activity, Records may include analyses of data and a discussion of what the data reveal.

On successful completion you will be able to:

- Appropriately record research findings and utilise these records to produce a research report and reflect on initial project design.

Project Report

Assessment Type ¹: Report

Indicative Time on Task ²: 57 hours

Due: **30/10/2020**

Weighting: **50%**

Project report to include introduction to research question, methods and research plan and research findings.

On successful completion you will be able to:

- Demonstrate knowledge of research methods and advanced analytical techniques through the design and implementation of a project plan to answer a specific research

question

- Work professionally with a research supervisor, and other research collaborators as required to plan and undertake a research project.
- Appropriately record research findings and utilise these records to produce a research report and reflect on initial project design.

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

Please see iLearn for up-to-date information on deliver and resources including the unit schedule.

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.*)

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 \(https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/p\)](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/p)

[olicy-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.