



ENVS6115

Climate Change, Energy and our Future

Session 2, In person-scheduled-weekday, North Ryde 2026

School of Natural Sciences

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General Information

Unit convenor and teaching staff

Jessica Boomer

jessica.boomer@mq.edu.au

Credit points

10

Prerequisites

Corequisites

Co-badged status

Unit description

Climate change is one of the most serious challenges facing humanity now and into the future. This topical unit explores key aspects of climate change including the underlying science and the role of human activity, the impacts, and adaptation and mitigation solutions. The unit examines the climate system, current observations and future projections of climate change, and the significance of sectoral and regional climate risks to natural and human systems. The unit also provides an in-depth examination of the role of energy in the climate change issue, from fossil fuel use as a major driver of climate change, to renewable energy as a fundamental solution to this crisis. The unit will empower students to engage in informed discussion about this issue

Learning in this unit enhances student understanding of global challenges identified by the United Nations Sustainable Development Goals ([UNSDGs](#)) Affordable and Clean Energy; Climate Action

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 an informed, holistic world view of the climate change issue, including the ability to differentiate natural climate variability from global warming.

ULO2: Demonstrate knowledge of the fundamental physical mechanisms driving climate variability and climate change.

ULO3: Describe the links between fossil fuels, agriculture, population growth and climate change, and the present and future impacts on physical, biological and human systems.

ULO4: Explain the role of government, community and industry in determining climate change policy, including adaptation and mitigation options.

ULO5: Assess the validity of information from a range of sources, including scientific communications and popular media.

General Assessment Information

To pass this unit you need to achieve a total mark equal to or greater than 50% across all assessments,

We strongly encourage all students to actively participate in all learning activities. Regular engagement is crucial for your success in this unit, as these activities provide opportunities to deepen your understanding of the material, collaborate with peers, and receive valuable feedback from instructors, to assist in completing the unit assessments. Your active participation not only enhances your own learning experience but also contributes to a vibrant and dynamic learning environment for everyone.

Late Assessment Submission Penalty

Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark of the task) will be applied for each day a written report or presentation assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of '0' will be awarded even if the assessment is submitted. The submission time for all uploaded assessments is 11:55 pm. A 1-hour grace period will be provided to students who experience a technical concern. For any late submission of time-sensitive tasks, such as scheduled tests/exams, performance assessments/presentations, and/or scheduled practical assessments/labs, please apply for [Special Consideration](#).

Infographic: YES, Standard Late Penalty applies, to avoid these please apply for a Short Extension or Special Consideration

Research Report: YES, Standard Late Penalty applies, to avoid these please apply for a Short Extension or Special Consideration

Final Exam: NO, unless Special Consideration is Granted

Special Consideration

The [Special Consideration Policy](#) aims to support students who have been impacted by short-term circumstances or events that are serious, unavoidable and significantly disruptive, and which may affect their performance in assessment. If you experience circumstances or events that affect your ability to complete the assessments in this unit on time, please inform the convenor and submit a Special Consideration request through <https://connect.mq.edu.au>.

Assessment Tasks

Name	Weighting	Hurdle	Due	Groupwork/Individual	Short Extension	AI Approach
Infographic	30%	No	11/09/2026	Individual	Yes	Open
Research report	40%	No	16/10/2026	Individual	Yes	Open
Final Exam	30%	No	Exam Period	Individual	No	Observed

Infographic

Assessment Type ¹: Creative task

Indicative Time on Task ²: 25 hours

Due: **11/09/2026**

Weighting: **30%**

Groupwork/Individual: Individual

Short extension ³: Yes

AI Approach: Open

You will produce an infographic on key concepts.

On successful completion you will be able to:

- Demonstrate an informed, holistic world view of the climate change issue, including the ability to differentiate natural climate variability from global warming.
- Demonstrate knowledge of the fundamental physical mechanisms driving climate variability and climate change.
- Describe the links between fossil fuels, agriculture, population growth and climate change, and the present and future impacts on physical, biological and human systems.
- Explain the role of government, community and industry in determining climate change policy, including adaptation and mitigation options.
- Assess the validity of information from a range of sources, including scientific communications and popular media.

Research report

Assessment Type ¹: Written Submission

Indicative Time on Task ²: 36 hours

Due: **16/10/2026**

Weighting: **40%**

Groupwork/Individual: Individual

Short extension ³: Yes

AI Approach: Open

You will write a report on an aspect of climate change.

On successful completion you will be able to:

- Demonstrate an informed, holistic world view of the climate change issue, including the ability to differentiate natural climate variability from global warming.
- Demonstrate knowledge of the fundamental physical mechanisms driving climate variability and climate change.
- Describe the links between fossil fuels, agriculture, population growth and climate change, and the present and future impacts on physical, biological and human systems.
- Explain the role of government, community and industry in determining climate change policy, including adaptation and mitigation options.
- Assess the validity of information from a range of sources, including scientific communications and popular media.

Final Exam

Assessment Type ¹: Examination

Indicative Time on Task ²: 20 hours

Due: **Exam Period**

Weighting: **30%**

Groupwork/Individual: Individual

Short extension ³: No

AI Approach: Observed

The purpose of the Final Exam is for you to formally demonstrate the expertise you have gained in this unit. The exam may include any topic covered in the unit.

On successful completion you will be able to:

- Demonstrate knowledge of the fundamental physical mechanisms driving climate variability and climate change.
- Describe the links between fossil fuels, agriculture, population growth and climate change, and the present and future impacts on physical, biological and human systems.
- Explain the role of government, community and industry in determining climate change policy, including adaptation and mitigation options.

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

- [Academic Success](#) 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.

³ An automatic short extension is available for some assessments. Apply through the [Service Connect Portal](#).

Delivery and Resources

This unit has a weekly 2 hour lecture. The lecture is delivered live and in person. See the Unit Schedule in iLearn for details. Lectures start in Week 1.

This unit also has a workshop every second week starting in Week 2. See the Unit Schedule in iLearn for details.

Please see the unit's iLearn site for the Unit Schedule, Assessment Tasks, Announcements and Discussion Forum, and weekly content.

Methods of Communication

We will communicate with you via your university email and through announcements on iLearn. Queries to convenors can either be placed on the iLearn discussion board or sent to the unit convenor via the contact email on iLearn.

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](https://policies.mq.edu.au) (<https://policies.mq.edu.au>). 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](#)
- [Assessment Procedure](#)
- [Complaints Resolution Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#)

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

To find other policies relating to Teaching and Learning, visit [Policy Central](https://policies.mq.edu.au) (<https://policies.mq.edu.au>) and use the [search tool](#).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of

Conduct: <https://students.mq.edu.au/admin/other-resources/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 connect.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe [academic integrity](#) – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free [online writing and maths support](#), [academic skills development](#) and [wellbeing consultations](#).

Student Support

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

Academic Success

[Academic Success](#) provides resources to develop your English language proficiency, academic writing, and communication skills.

- [Ask a Study Coach](#)
- [Access StudyWISE](#)
- [Upload an assignment to Studiosity](#)
- [Complete the 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

Macquarie University offers a range of [Student Support Services](#) including:

- [IT Support](#)
- [Accessibility and disability support](#) with study
- Mental health [support](#)
- [Safety support](#) to respond to bullying, harassment, sexual harassment and sexual assault

- [Social support including information about finances, tenancy and legal issues](#)
- [Student Advocacy](#) provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via the [Service Connect Portal](#), or contact [Service Connect](#).

IT Help

For help with University computer systems and technology, visit <https://students.mq.edu.au/support/technology/service-desk>.

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.

Changes from Previous Offering

We value student feedback to be able to continually improve the way we offer our units. As such we encourage students to provide constructive feedback via student surveys, to the teaching staff directly, or via the FSE Student Experience & Feedback link in the iLearn page.

Changes since First Published

Date	Description
14/07/2026	removed a typo

Unit information based on version 2026.03 of the [Handbook](#)