



ENVS6115

Climate Change, Energy and our Future

Session 2, In person-scheduled-weekday, North Ryde 2022

School of Natural Sciences

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General Information

Unit convenor and teaching staff

Unit convenor

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Contact via via iLearn

Teaching staff

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Teaching staff

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Credit points

10

Prerequisites

Admission to MEnv or GradDipEnv or GradCertEnv or MSusDev or GradDipSusDev or GradCertSusDev or MScInnovationEnvSc or MScInnovationGeologyGeophys or MEngEnvSafetyEng

Corequisites

Co-badged status

ENV52115

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

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.

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.

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

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

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

General Assessment Information

Detailed assessment information is available on the unit's iLearn site.

Late Assessment Submission Penalty

From 1 July 2022, Students enrolled in Session based units with written assessments will have the following late penalty applied. Please see <https://students.mq.edu.au/study/assessment-exams/assessments> for more information.

Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark) will be applied each day a written 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. Submission time for all written assessments is set at 11:55 pm. A 1-hour grace period is 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, students need to submit an application for [Special Consideration](#).

Assessments where Late Submissions will be accepted

In this unit, late submissions will be accepted as follows:

- Quizzes - NO, unless Special Consideration is granted
- Research report - YES, Standard Late Penalty applies
- Final exam - NO, unless Special Consideration is granted

Assessment Tasks

Name	Weighting	Hurdle	Due
Assessment of knowledge on lectures and/or practical/tutorial tasks	20%	No	Weeks 4, 7, 10, 13
Research report	40%	No	28/10/2022
Final Exam	40%	No	Exam period

Assessment of knowledge on lectures and/or practical/tutorial tasks

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 20 hours

Due: **Weeks 4, 7, 10, 13**

Weighting: **20%**

Short quizzes or tests will be used to maintain everyone's engagement with the unit content.

On successful completion you will be able to:

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

Research report

Assessment Type ¹: Report

Indicative Time on Task ²: 40 hours

Due: **28/10/2022**

Weighting: **40%**

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

Due: **Exam period**

Weighting: **40%**

Final exam on material from lectures, assignment and practicals/tutorials.

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.
- Describe the links between fossil fuels, agriculture, population growth and climate change, and the present and future impacts on physical, biological and human systems.
- Demonstrate knowledge of the fundamental physical mechanisms driving climate variability and climate change.
- Explain the role of government, community and industry in determining climate change policy, including adaptation and mitigation options such as renewable energy.
- Assess the validity of information from a range of sources, including scientific communications and popular media.

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

Lecture content is delivered through a mixture of face to face and online - see iLearn site for details

Workshops are held weekly face to face.

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](#) (<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>). 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>) 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 [ask.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/>

The Writing Centre

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

- [Workshops](#)
- [Chat with a WriteWISE peer writing leader](#)
- [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 Enquiries

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

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.