

# **ENVS6115**

# Climate Change, Energy and our Future

Session 2, In person-scheduled-weekday, North Ryde 2024

School of Natural Sciences

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#### Disclaimer

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## **General Information**

Unit convenor and teaching staff

Unit convenor

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Credit points

10

Prerequisites

Corequisites

Co-badged status

**ENVS2115** 

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.

**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 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 information on each assessment task is available on the unit's iLearn site.

#### Requirements to Pass this Unit

To pass this unit you should attempt all assessments, and you must achieve a total mark equal to or greater than 50%.

#### **Late Assessment Submission Penalty**

Students enrolled in Session based units with written assessments will have the following late penalty applied. Please see <a href="https://students.mq.edu.au/study/assessment-exams/assessment">https://students.mq.edu.au/study/assessment-exams/assessment</a> s 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 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

#### **Special Consideration**

The <u>Special Consideration Policy</u> 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 ask.mq.edu.au.

## **Assessment Tasks**

Name	Weighting	Hurdle	Due
Assessment of knowledge on lectures and/or workshops tasks	20%	No	Weeks 3, 5, 7, 9, 11, 13
Research report	40%	No	11th October 2024
Final Exam	40%	No	In scheduled exam period

# Assessment of knowledge on lectures and/or workshops tasks

Assessment Type 1: Quiz/Test Indicative Time on Task 2: 20 hours

Due: Weeks 3, 5, 7, 9, 11, 13

Weighting: 20%

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

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 such as renewable energy.

# Research report

Assessment Type 1: Report Indicative Time on Task 2: 40 hours

Due: 11th October 2024

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.
- 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 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: In scheduled exam period

Weighting: 40%

Final exam on material from lectures, assignment and workshops.

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 such as renewable energy.
- Assess the validity of information from a range of sources, including scientific communications and popular media.

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

# **Delivery and Resources**

Lectures are delivered through a mixture of face to face and online - details will be on the unit iLearn site.

Workshops are held face to face each week, commencing in week 2.

#### **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). 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 <u>Student Policies</u> (<u>https://students.mq.edu.au/support/study/policies</u>). 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.e du.au) and use the search tool.

#### Student Code of Conduct

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

<sup>&</sup>lt;sup>1</sup> If you need help with your assignment, please contact:

<sup>&</sup>lt;sup>2</sup> Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Conduct: https://students.mg.edu.au/admin/other-resources/student-conduct

### Results

Results published on platform other than <u>eStudent</u>, (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 <u>eStudent</u>. For more information visit <u>ask.mq.edu.au</u> or if you are a Global MBA student contact <u>globalmba.support@mq.edu.au</u>

## **Academic Integrity**

At Macquarie, we believe <u>academic integrity</u> – 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 <u>online writing and maths support</u>, academic skills development and wellbeing consultations.

## Student Support

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

## **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 Advocacy provides independent advice on MQ policies, procedures, and processes

# Student Enquiries

Got a question? Ask us via AskMQ, or contact Service Connect.

## IT Help

For help with University computer systems and technology, visit <a href="http://www.mq.edu.au/about\_us/">http://www.mq.edu.au/about\_us/</a> offices\_and\_units/information\_technology/help/.

When using the University's IT, you must adhere to the <u>Acceptable Use of IT Resources Policy</u>. The policy applies to all who connect to the MQ network including students.

Unit information based on version 2024.04 of the Handbook