

# ECON7017 Climate Change, Energy and Environmental Economics

Session 1, In person-scheduled-weekday, North Ryde 2024

Department of Economics

# Contents

General Information	2
Learning Outcomes	2
General Assessment Information	3
Assessment Tasks	3
Delivery and Resources	6
Unit Schedule	6
Policies and Procedures	6

#### Disclaimer

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### **General Information**

Unit convenor and teaching staff Unit convenor and lecturer Rohan Best rohan.best@mq.edu.au

Credit points 10

Prerequisites Admission to MRes

Corequisites

Co-badged status

Unit description

This unit explores key ecological economics and environmental management issues, stressing the complex nature of the ecosystem within which economic activity is embedded and the constraints imposed on the scale of human economic activity. Topics covered may include sustainability and sustainable development, limits to economic growth, the definition and measurement of welfare and economic progress, and the development of energy and climate change policies for a closed and rapidly changing world. The unit makes significant use of case studies and has an individual applied research component.

### Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <a href="https://www.mq.edu.au/study/calendar-of-dates">https://www.mq.edu.au/study/calendar-of-dates</a>

# **Learning Outcomes**

On successful completion of this unit, you will be able to:

**ULO1:** Apply advanced terminology and concepts associated with the analyses of environmental issues from an ecological economics perspective.

**ULO2:** Evaluate ecological aspects of environmental problems, including key

stakeholders and important incentive effects, and the role of ecological constraints.

**ULO3:** Critically analyse the major theoretical approaches to the ecological analysis of environmental issues, the assumptions on which they are based and their implications regarding the effects of changes in key parameters.

**ULO4:** Assess and compare policy alternatives in relation to environmental issues from the perspective of ecological economics.

### **General Assessment Information**

#### Late submissions of assessments

#### Late Assessment Submission Penalty (written assessments)

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 11.55pm. A 1-hour grace period is provided to students who experience a technical concern. For any late submissions 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.

### **Assessment Tasks**

Name	Weighting	Hurdle	Due
Content quizzes	20%	No	Week 2 to 13
Written reflections	20%	No	Week 6 and Week 10
Research assignment summary	20%	No	Week 8
Research assignment	40%	No	Week 13

### Content quizzes

Assessment Type 1: Quiz/Test Indicative Time on Task 2: 10 hours Due: **Week 2 to 13** Weighting: **20%** 

There will be weekly online quizzes from weeks 2-13. Each quiz involves 10 multiple choice questions on course content and readings.

On successful completion you will be able to:

- Apply advanced terminology and concepts associated with the analyses of environmental issues from an ecological economics perspective.
- · Evaluate ecological aspects of environmental problems, including key stakeholders and

important incentive effects, and the role of ecological constraints.

- Critically analyse the major theoretical approaches to the ecological analysis of environmental issues, the assumptions on which they are based and their implications regarding the effects of changes in key parameters.
- Assess and compare policy alternatives in relation to environmental issues from the perspective of ecological economics.

### Written reflections

Assessment Type 1: Reflective Writing Indicative Time on Task 2: 10 hours Due: **Week 6 and Week 10** Weighting: **20%** 

This task involves two reflective blog entries on course content. Students are to identify what the key points are from particular sections of the course, and explain why. Each 500 word blog is worth 10%.

On successful completion you will be able to:

- Apply advanced terminology and concepts associated with the analyses of environmental issues from an ecological economics perspective.
- Evaluate ecological aspects of environmental problems, including key stakeholders and important incentive effects, and the role of ecological constraints.
- Assess and compare policy alternatives in relation to environmental issues from the perspective of ecological economics.

### Research assignment summary

Assessment Type 1: Qualitative analysis task Indicative Time on Task 2: 8 hours Due: **Week 8** Weighting: **20%** 

This task involves the submission of a written 200 word abstract for the major research assignment.

On successful completion you will be able to:

- Apply advanced terminology and concepts associated with the analyses of environmental issues from an ecological economics perspective.
- Evaluate ecological aspects of environmental problems, including key stakeholders and important incentive effects, and the role of ecological constraints.
- Critically analyse the major theoretical approaches to the ecological analysis of environmental issues, the assumptions on which they are based and their implications regarding the effects of changes in key parameters.
- Assess and compare policy alternatives in relation to environmental issues from the perspective of ecological economics.

### Research assignment

Assessment Type 1: Case study/analysis Indicative Time on Task 2: 22 hours Due: **Week 13** Weighting: **40%** 

The research assignment will include a 3000-word literature review of a topic in ecological economics.

On successful completion you will be able to:

- Apply advanced terminology and concepts associated with the analyses of environmental issues from an ecological economics perspective.
- Evaluate ecological aspects of environmental problems, including key stakeholders and important incentive effects, and the role of ecological constraints.
- Critically analyse the major theoretical approaches to the ecological analysis of environmental issues, the assumptions on which they are based and their implications regarding the effects of changes in key parameters.
- Assess and compare policy alternatives in relation to environmental issues from the perspective of ecological economics.

<sup>1</sup> 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.

<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

# **Delivery and Resources**

See iLearn for details of delivery

### **Unit Schedule**

#### Part 1: Concepts and climate change

Topic 1: Introductory concepts

Topic 2: Introduction on climate change and economic concepts

#### Part 2: The energy context

Topic 3: Introductory energy concepts

Topic 4: Macroeconomic relationships explaining energy outcomes

#### Part 3: Microeconomic energy perspectives

Topic 5: Adoption of solar panels by households

Topic 6: Other small-scale energy outcomes

#### Part 4: The broader environmental and social context

Topic 7: Co-benefits of emissions reduction

Topic 8: Equity aspects for environmental contexts

#### Part 5: Policy responses

Topic 9: Policy principles and existing policy approaches

Topic 10: Carbon pricing impacts

Topic 11: Carbon pricing debates

Topic 12: Case studies of Australian energy policies and new policy proposals

### **Policies and Procedures**

Macquarie University policies and procedures are accessible from Policy Central (https://policie s.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/su</u> <u>pport/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 <u>Policy Central</u> (<u>https://policies.mq.e</u> <u>du.au</u>) and use the <u>search tool</u>.

### **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 <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 globalmba.support@mq.edu.au

### 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 an</u> d maths support, academic skills development and wellbeing consultations.

### Student Support

Macquarie University provides a range of support services for students. For details, visit <u>http://stu</u> dents.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
- <u>Safety support</u> to respond to bullying, harassment, sexual harassment and sexual assault
- · Social support including information about finances, tenancy and legal issues
- <u>Student Advocacy</u> 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 <u>http://www.mq.edu.au/about\_us/</u>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 2024.02 of the Handbook