



# ECON359

## Environmental Economics

S2 Day 2018

*Dept of Economics*

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#### **Disclaimer**

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## General Information

Unit convenor and teaching staff

Unit Convenor, Lecturer

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Contact via via email

E4A 409

TBA

Credit points

3

Prerequisites

6cp at 200 level including (ECON200 or ECON203)

Corequisites

Co-badged status

Unit description

The application of economic principles to the management of environmental assets throws up fundamental practical and conceptual challenges. An understanding of the nature and causes of environmental problems, and ways to achieve efficient and sustainable use of environmental resources, is vital for the future welfare of the human race. In this unit we examine the theoretical foundation of optimal exploitation of assets such as energy, minerals, water, forests and fisheries, and the management of water, air and soil pollution. The implications of economic theory are contrasted and combined with contributions from ecological economics where appropriate, and the role of institutional function is emphasised throughout. Case studies are drawn from Australian and international experience.

## 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:

Evidence competence in the use of terminology and concepts associated with the economic analysis of environmental issues.

Identify the relevant economic aspects of environmental problems and policy responses,

including key stakeholders and important incentive effects and their determinants.

Show cognisance of the different theoretical approaches to the analysis of environmental issues.

Demonstrate knowledge of the data needs for a meaningful economic analysis of environmental problems.

Manifest the capacity to assess and compare policy alternatives in relation to environmental issues.

## General Assessment Information

Information Sheets containing detailed information on assessment tasks, including specific submission and assessment dates, will be supplied via iLearn.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Individual case study essay</u>	30%	No	Week 8
<u>Team Meetings</u>	20%	No	Weekly
<u>Team Project</u>	35%	No	Week 13
<u>Class Test</u>	15%	No	Week 13

### Individual case study essay

Due: **Week 8**

Weighting: **30%**

Individual "Pollution" Case Study is a 2000 word essay. Based on the readings (Textbook Chapters 5, 6, & 7), find a real world economic activity that has created an environmental problem that relates to "pollution" (eg. greenhouse gases emitted from decaying organic material in a local reservoir). Following the Economic Efficiency Framework, analyse the effects of your selected economic activity on environmental and social systems. (Note: effects are dependent on location and type). Propose a policy recommendation for the "reasonable control" of this economic activity and/or pollution. This essay should display an understanding of how an economic activity directly and indirectly impacts on the environment and people, and how this understanding informs appropriate policies.

**This essay is due in Week 8.** (Details of the submission will be provided in the Assessment Information Sheet). Late submissions will incur a penalty of 10% of the total mark for each 24 hour period. This penalty does not apply for cases in which a Special Consideration application has been made and approved. However, the students should inform the lecturer of their intention to apply for Special Consideration.

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## Team Meetings

Due: **Weekly**

Weighting: **20%**

There will be weekly Team Meetings associated with the Team Project. Before each meeting, an agenda for the meeting must be drawn and distributed to the members. During the meeting, the minutes of the discussion must be taken. Both the agenda and minutes must be submitted in the lectorial to the lecturer at the conclusion of the meeting. Students will rotate between agenda maker and minutes taker. Each submission is worth 5%. The best 4 submissions will contribute to the student's total Team Meeting mark of 20%. It is the student's responsibility to ensure you have assumed the role of agenda maker and minutes taker at least 4 times before Week 13.

Team Meetings will take place 9-10am before the lectorial. Team meetings begin in Week 2. There will be no Team Meetings in Weeks 1, 8 and 13.

NB: a team who does not submit an agenda and/or minutes will incur a penalty, delivered to the Team Project. Further details will be provided.

On successful completion you will be able to:

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- Demonstrate knowledge of the data needs for a meaningful economic analysis of environmental problems.

## Team Project

Due: **Week 13**

Weighting: **35%**

This major assessment is an exercise in exploration of events, ideas and creative solutions and is marked accordingly, out of 35%.

Discover a current major environmental issue and explore the predictions and/or solutions. The topics to choose from are the following:

“The paradox of the renewables”

“Water sharing”

“Rupture and rubble”

Exploration of these topics and the details of the Team Project will be provided in the lectorial in Week 1.

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- Manifest the capacity to assess and compare policy alternatives in relation to environmental issues.

## Class Test

Due: **Week 13**

Weighting: **15%**

The 1.5 hour Class Test will take place in Week 13, in the lectorial. This will comprise of a series of long answer questions relating to the content explored in the course. As this is essentially a diagnostic test of your understanding of the inter-connection between economy, environment and people, the difficulty level is high. You should prepare along these lines. More details will be provided beforehand.

Students who are absent for the Class Test will score zero for this assessment. This penalty does not apply for cases in which an application for Special Consideration has been made and approved. If approved, policy allows for the provision of one additional assessment task. This task need not be the same as the missed assessment. It could be a test, essay or oral task. In submitting a Special Consideration application, the student is agreeing to make themselves available so that they can complete any extra work as required. The time and date, deadline or format of any required extra assessable work will not be open to negotiation.

On successful completion you will be able to:

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## Delivery and Resources

### Classes

1 x 2 hour 'lectorial' per week. 1 x 1 hour 'team discussion' per week. See iLearn for the timetable of lectorials and team meetings.

The timetable for classes can be found on the University web site at:

<http://www.timetables.mq.edu.au/>

### Recommended Texts and/or Materials

Perman, R., Ma, Y., McGilvray, J. & Common, M. (2011) *Natural Resource and Environmental Economics* (4th Ed, Addison Wesley).

The text combines a direct and intuitive approach to theoretical issues with an appropriate degree of rigour that is missing in many other texts in the field.

The text can be purchased from the Macquarie University Co-op Bookshop.

Annotated Powerpoint presentations, provided on iLearn after each class.

Readings (journal articles, news pieces, youtube videos, etc) will be provided on iLearn after each class.

### UNIT WEB PAGE

Course material is available on the learning management system (iLearn) The web page for this unit can be found at: <https://ilearn.mq.edu.au/>

### Teaching and Learning Strategy

The course material will be delivered online and in 'lectorial' sessions.

**Students must interact with the assigned content material before the following week's team meeting. Compliance will be monitored through the submission of agenda and minutes.**

## Unit Schedule

Week	Lecture	Chapter
1	Overview of the Unit; Introducing the problem & exploring the solution	
2	Perspectives in environmental economics – Introduction to natural resources and environmental economics	1
3	The origins of the sustainability problem	2
4	Welfare economics and the environment	4
5	Economy-wide modelling	8
6	International environmental problems	9
7	Exploration	
8	Cost and benefit analysis	11
9	Valuing the environment	12
10	The efficient and optimal use of natural resources	14
11	Non-renewable resources	15
12	Renewable resources	17
13	Class Test	Additional reading

## 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.*)

Undergraduate students seeking more policy resources can visit the [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/policy-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 shown in *iLearn*, 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](#).

## Academic Honesty

The nature of scholarly endeavour, dependent as it is on the work of others, binds all members of the University community to abide by the principles of academic honesty. Its fundamental principle is that all staff and students act with integrity in the creation, development, application and use of ideas and information. This means that:

- all academic work claimed as original is the work of the author making the claim
- all academic collaborations are acknowledged
- academic work is not falsified in any way
- when the ideas of others are used, these ideas are acknowledged appropriately.

Further information on the academic honesty can be found in the Macquarie University Academic Honesty Policy at [http://www.mq.edu.au/policy/docs/academic\\_honesty/policy.html](http://www.mq.edu.au/policy/docs/academic_honesty/policy.html)

## Grades

Macquarie University uses the following grades in coursework units of study:

- HD - High Distinction
- D - Distinction
- CR - Credit
- P - Pass



- F - Fail

Grade descriptors and other information concerning grading are contained in the Macquarie University Assessment Policy, the relevant section of which is available at:

[http://www.mq.edu.au/policy/docs/assessment/schedule\\_1.html](http://www.mq.edu.au/policy/docs/assessment/schedule_1.html)

## Grading Appeals and Final Examination Script Viewing

If, at the conclusion of the unit, you have performed below expectations, and are considering lodging an appeal of grade and/or viewing your final exam script please refer to the following website which provides information about these processes and the cut off dates in the first instance. Please read the instructions provided concerning what constitutes a valid grounds for appeal before appealing your grade.

[http://www.businessandconomics.mq.edu.au/new\\_and\\_current\\_students/undergraduate\\_current\\_students/how\\_do\\_i/grade\\_appeals/](http://www.businessandconomics.mq.edu.au/new_and_current_students/undergraduate_current_students/how_do_i/grade_appeals/)

## Disruptions to Study Policy

The University is committed to equity and fairness in all aspects of its learning and teaching. In stating this commitment, the University recognises that there may be circumstances where a student is prevented by unavoidable disruption from performing in accordance with their ability. A special consideration policy exists to support students who experience serious and unavoidable disruption such that they do not reach their usual demonstrated performance level. The policy is available at:

[http://www.mq.edu.au/policy/docs/disruption\\_studies/policy.html](http://www.mq.edu.au/policy/docs/disruption_studies/policy.html)

## 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](http://mq.edu.au/learningskills)) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

## 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](http://ask.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/](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.

## Graduate Capabilities

### Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

### Learning outcomes

- Evidence competence in the use of terminology and concepts associated with the economic analysis of environmental issues.
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- Manifest the capacity to assess and compare policy alternatives in relation to environmental issues.

### Assessment tasks

- Individual case study essay
- Team Project
- Class Test

## Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

### Learning outcomes

- Evidence competence in the use of terminology and concepts associated with the economic analysis of environmental issues.
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### Assessment tasks

- Individual case study essay
- Team Meetings
- Team Project
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## Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

### Learning outcomes

- Evidence competence in the use of terminology and concepts associated with the economic analysis of environmental issues.
- Identify the relevant economic aspects of environmental problems and policy responses,

including key stakeholders and important incentive effects and their determinants.

- Demonstrate knowledge of the data needs for a meaningful economic analysis of environmental problems.
- Manifest the capacity to assess and compare policy alternatives in relation to environmental issues.

## **Assessment tasks**

- Individual case study essay
- Team Meetings
- Team Project
- Class Test

## **Socially and Environmentally Active and Responsible**

We want our graduates to be aware of and have respect for self and others; to be able to work with others as a leader and a team player; to have a sense of connectedness with others and country; and to have a sense of mutual obligation. Our graduates should be informed and active participants in moving society towards sustainability.

This graduate capability is supported by:

## **Learning outcomes**

- Evidence competence in the use of terminology and concepts associated with the economic analysis of environmental issues.
- Identify the relevant economic aspects of environmental problems and policy responses, including key stakeholders and important incentive effects and their determinants.
- Show cognisance of the different theoretical approaches to the analysis of environmental issues.
- Demonstrate knowledge of the data needs for a meaningful economic analysis of environmental problems.
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## **Assessment tasks**

- Individual case study essay
- Team Meetings
- Team Project
- Class Test

## Changes from Previous Offering

Note the changes to the assessment structure from previous sessions. This new structure follows the collective learning framework of social learning and social responsibility within a collaborative space.

## Changes since First Published

Date	Description
02/08/2018	The section titled "Requirements for successful unit completion" has been deleted as the requirements no longer applies from 2018.