



# ECON359

## Environmental Economics

S2 Day 2016

*Dept of Economics*

### Contents

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<a href="#"><u>General Information</u></a>	2
<a href="#"><u>Learning Outcomes</u></a>	2
<a href="#"><u>General Assessment Information</u></a>	3
<a href="#"><u>Assessment Tasks</u></a>	3
<a href="#"><u>Delivery and Resources</u></a>	5
<a href="#"><u>Unit Schedule</u></a>	5
<a href="#"><u>Learning and Teaching Activities</u></a>	6
<a href="#"><u>Policies and Procedures</u></a>	6
<a href="#"><u>Graduate Capabilities</u></a>	9
<a href="#"><u>Changes from Previous Offering</u></a>	12
<a href="#"><u>Requirements for successful unit completion</u></a>	12

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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/iLearn

E4A 425

Thursday 10-12

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

Demonstrate knowledge of the data needs for a meaningful economic analysis of environmental problems, and be able to identify potential data sources and methods for collecting data.

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

## General Assessment Information

Detailed information on assessment tasks, including specific submission and assessment dates, will be supplied via iLearn.

All assessments will involve online submission/completion only.

As the timing of contributions to assessment tasks in ECON359 is completely within the control of the student, the following conditions apply to all assessment tasks:

**No extensions will be granted. Students who have not submitted the task prior to a deadline will be awarded a mark of 0 for the task, except in cases in which an application for Disruption to Studies is approved and a determination made that *serious and unavoidable disruption* has occurred.**

Note that for the personal case study there are no 'due dates' per se. The content on the individual wikis will be assessed at particular, stated times.

## Assessment Tasks

Name	Weighting	Due
<u>Reflective lectorial blog</u>	40%	Weekly
<u>Graded discussions</u>	30%	Weeks 5,9,13
<u>Personal case study</u>	30%	Week 4, Week 8, Week 13

### Reflective lectorial blog

Due: **Weekly**

Weighting: **40%**

On successful completion you will be able to:

- Evidence competence in the use of terminology and concepts associated with the economic analysis of environmental issues.
- Show cognisance of the major theoretical approaches to the analysis of environmental issues, the assumptions on which they are based and their implications regarding the effects of changes in key parameters.
- Demonstrate knowledge of the data needs for a meaningful economic analysis of environmental problems, and be able to identify potential data sources and methods for collecting data.
- Manifest the capacity to assess and compare policy alternatives in relation to environmental issues.

## Graded discussions

Due: **Weeks 5,9,13**

Weighting: **30%**

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

## Personal case study

Due: **Week 4, Week 8, Week 13**

Weighting: **30%**

Note that the dates listed as 'Due dates' are not deadlines as traditionally understood, involving submission of specific material. The personal case study is an evolving reflective document, built up over the course of the session. Its content will be assessed at three different points in time (as listed).

On successful completion 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 major theoretical approaches to the analysis of environmental issues, the assumptions on which they are based and their implications regarding the effects of changes in key parameters.
- Demonstrate knowledge of the data needs for a meaningful economic analysis of environmental problems, and be able to identify potential data sources and methods for collecting data.
- Manifest the capacity to assess and compare policy alternatives in relation to environmental issues.

## Delivery and Resources

### Classes

1 x 2 hour 'lectorial' per week.

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.

Powerpoint presentations, visualiser.

Technology requirements: nil beyond standard e.g. computer access.

### 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 each lectorial. Compliance will be monitored and marking of assessment tasks related to lectorial sessions is conditional upon adequate compliance.**

### Unit Schedule

Note: pre-read (i.e. prior to the course commencing) Chapters 4,14 of the text. This information will be treated as presumed knowledge.

Week	Lecture (Text Chapter)
1	Introduction and overview (1)
2	<i>Resource economics I</i> - Non-renewable resources (15)
3	<i>Resource economics II</i> - Fishery economics (17)
4	<i>Resource economics III</i> - Forestry economics (18)
5	<i>Pollution control I</i> - Targets (5)
6	<i>Pollution control II</i> - Instruments (6)
7	<i>Pollution control III</i> - Policy with imperfect information (7)
	<b>Session 2 recess</b>
8	<i>Project appraisal I</i> - Cost-benefit analysis (11)
9	<i>Project appraisal II</i> - Environmental valuation (12)
10	<i>Project appraisal III</i> - Irreversibility, risk and uncertainty (13)
11	<i>Big picture I</i> - Sustainability and growth (2)
12	<i>Big picture III</i> - Climate change (9)
13	<i>Big picture III</i> - Ethics and environmental Policy (3)

## Learning and Teaching Activities

### Lectorials - Large Group teaching

The lectorial format involves one 2-hour weekly meeting for which content will be provided in part in advance. The face to face sessions will involve interrogation, development and application of that content. Assessment will in part be based on reflection upon the outcomes of each session. The purpose of this format is to provide more 'value-added' from class time. Note: face-to-face sessions will not be recorded and the assessment task related to each session requires attendance at the session.

### Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](#). Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy [http://mq.edu.au/policy/docs/academic\\_honesty/policy.html](http://mq.edu.au/policy/docs/academic_honesty/policy.html)

**New Assessment Policy in effect from Session 2 2016** [http://mq.edu.au/policy/docs/assessment/policy\\_2016.html](http://mq.edu.au/policy/docs/assessment/policy_2016.html). For more information visit [http://students.mq.edu.au/events/2016/07/19/new\\_assessment\\_policy\\_in\\_place\\_from\\_session\\_2/](http://students.mq.edu.au/events/2016/07/19/new_assessment_policy_in_place_from_session_2/)

Assessment Policy prior to Session 2 2016 <http://mq.edu.au/policy/docs/assessment/policy.html>

Grading Policy prior to Session 2 2016 <http://mq.edu.au/policy/docs/grading/policy.html>

Grade Appeal Policy <http://mq.edu.au/policy/docs/gradeappeal/policy.html>

Complaint Management Procedure for Students and Members of the Public [http://www.mq.edu.au/policy/docs/complaint\\_management/procedure.html](http://www.mq.edu.au/policy/docs/complaint_management/procedure.html)

Disruption to Studies Policy [http://www.mq.edu.au/policy/docs/disruption\\_studies/policy.html](http://www.mq.edu.au/policy/docs/disruption_studies/policy.html) *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

In addition, a number of other policies can be found in the [Learning and Teaching Category](#) of 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/support/student\\_conduct/](https://students.mq.edu.au/support/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](http://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.businessandeconomics.mq.edu.au/new\\_and\\_current\\_students/undergraduate\\_current\\_students/how\\_do\\_i/grade\\_appeals/](http://www.businessandeconomics.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

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

### Assessment tasks

- Reflective lectorial blog
- Graded discussions
- Personal case study

### Learning and teaching activities

- The lectorial format involves one 2-hour weekly meeting for which content will be

provided in part in advance. The face to face sessions will involve interrogation, development and application of that content. Assessment will in part be based on reflection upon the outcomes of each session. The purpose of this format is to provide more 'value-added' from class time. Note: face-to-face sessions will not be recorded and the assessment task related to each session requires attendance at the session.

## 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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more 'value-added' from class time. Note: face-to-face sessions will not be recorded and the assessment task related to each session requires attendance at the session.

## 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.
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## 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.
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## **Assessment tasks**

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## **Learning and teaching activities**

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## **Changes from Previous Offering**

This unit has been reorganised into a 'lectorial' format. As such there will no longer be separate tutorial classes or tutorial-based assessment. The text has been changed and some topics added and/or modified. The unit no longer utilises a group assignment as an assessment task. Blogging and graded discussions have been added as assessment tasks.

## **Requirements for successful unit completion**

In order to successfully complete ECON359 you must:

- demonstrate mastery of the learning outcomes to an extent sufficient to warrant a passing grade as per the Assessment Policy;
- score at least 40% of the combined available marks for the Reflective Lectorial Blog and the Personal Case Study (i.e. at least 28/70);
- score at least 40% of the combined available marks for the Reflective Lectorial Blog and the Graded Discussions (i.e. at least 28/70);
- score at least 40% of the combined available marks for the Graded Discussions and the Personal Case Study (i.e. at least 24/60).

The rationale for these rules is that there is a minimum level of general performance required if a student is to be held to have achieved the Learning Outcomes, and this precludes doing extremely poorly in one of the assessment tasks. Some degree of 'catch up' is permissible, but this must be limited to maintain the integrity of the grading process.