



ECON359

Environmental Economics

S2 Day 2017

Dept of Economics

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Disclaimer

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General Information

Unit convenor and teaching staff

Unit Convenor, Lecturer

Dr Wylie Bradford

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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	Hurdle	Due
<u>Personal case study</u>	38%	No	Week 4, Week 8, Week 13
<u>Reflective lectorial blog</u>	30%	No	Fortnightly
<u>Graded discussions</u>	20%	No	Weeks 9,13
<u>Content quizzes</u>	12%	No	Weekly

Personal case study

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

Weighting: **38%**

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).

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- 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.

Reflective lectorial blog

Due: **Fortnightly**

Weighting: **30%**

Each week the face-to-face sessions will involve small-group discussion and response to the provided online material. The group outputs will be synthesised and discussed by the group as a whole. You will keep a record of your takeaways from and reflections on your sessions in your personal blog on iLearn.

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- 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 9,13**

Weighting: **20%**

At two points in the course a discussion forum will be opened and starting topics provided. You will be expected to contribute to the discussion and interact with your peers in sharing perspectives and information. Participation will be assessed.

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

Content quizzes

Due: **Weekly**

Weighting: **12%**

A weekly Kahoot multiple choice quiz covering the content set to be covered by students prior to the lectorial session. **You will need to bring a device with online connectivity to each session.**

On successful completion you will be able to:

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- 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.

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: **a device with online connectivity (phone, tablet, laptop) to participate in online assessment in 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 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)
	Session 2 recess
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 - Sustainability and growth (2)</i>
12	<i>Big picture III - Climate change (9)</i>
13	<i>Big picture III - Ethics and environmental Policy (3)</i>

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

Assessment Policy http://mq.edu.au/policy/docs/assessment/policy_2016.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

Disruption to Studies Policy (in effect until Dec 4th, 2017): http://www.mq.edu.au/policy/docs/disruption_studies/policy.html

Special Consideration Policy (in effect from Dec 4th, 2017): <https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/special-consideration>

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/

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

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

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/

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

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) 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

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.

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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Assessment tasks

- Personal case study
- Reflective lectorial blog
- Graded discussions
- Content quizzes

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.

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economic analysis of environmental issues.

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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.

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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

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Changes from Previous Offering

Kahoot quizzes have been made assessable. The reflective blog frequency has been reduced to fortnightly and the graded discussions reduced to two from three to offset workload. The weightings have been adjusted to reflect these changes, with greater weight now given to the personal case study. The requirements for successful completion have been updated to reflect the change in the assessment structure.

Requirements for successful unit completion

In order to demonstrate attainment of the learning outcomes to an extent sufficient to warrant a passing grade in ECON359 as per the Assessment Policy you must:

- score an aggregate mark in excess of 50;
- successfully complete (i.e. pass) **at least two assessment tasks, including either the personal case study or the reflective lectorial blog.**

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 the assessment tasks address different combinations of the Learning Outcomes. This means that doing extremely poorly in both of the assessment tasks that directly require reflection on the course material, and which involve higher-order reasoning of the content, is not consistent with demonstrating overall attainment of the Learning Outcomes. Some degree of 'make up' via the less reflective tasks is permissible, but this must be limited to maintain the integrity of the grading process.