



ECON359

Environmental Economics

S2 Day 2019

Dept of Economics

Contents

| | |
|---------------------------------------|----|
| <u>General Information</u> | 2 |
| <u>Learning Outcomes</u> | 2 |
| <u>Assessment Tasks</u> | 3 |
| <u>Delivery and Resources</u> | 5 |
| <u>Unit Schedule</u> | 5 |
| <u>Policies and Procedures</u> | 6 |
| <u>Graduate Capabilities</u> | 7 |
| <u>Changes from Previous Offering</u> | 10 |

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General Information

Unit convenor and teaching staff

Unit Convenor, Lecturer

Dr Andrea Chareunsky

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Contact via email

E4A 409

TBA

Credit points

3

Prerequisites

6cp at 200 level including 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:

Demonstrate cognisance of the different theoretical approaches, terminology and concepts associated with the economic analysis of environmental issues.

Demonstrate knowledge of the relevant economic aspects of environmental problems

and policy responses, including key stakeholders and important incentive effects and their determinants.

Critically evaluate different theoretical approaches in the assessment and comparison of policy alternatives with respect to environmental issues.

Assessment Tasks

| Name | Weighting | Hurdle | Due |
|------------------------------------|-----------|--------|-------------|
| <u>Policy Brief</u> | 30% | No | Week 8 |
| <u>Team Debate Participation</u> | 25% | No | Fortnightly |
| <u>The "Big Problem" Challenge</u> | 45% | No | Week 13 |

Policy Brief

Due: **Week 8**

Weighting: **30%**

In this individual 1,500 word **policy brief**, you are expected to provide a concise but informative summary of an environmental issue (from a given set) and how to deal with it (the policy alternatives and recommendations). The short report is aimed at non-economic readers from either academic and non-academic background interested in environmental policy. This brief should demonstrate your understanding of how economic activities directly and indirectly impact on the environment and people, and how this understanding informs appropriate policies.

The policy brief is due in Week 8. Details will be provided on iLearn and in-class. 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.

On successful completion you will be able to:

- Demonstrate cognisance of the different theoretical approaches, terminology and concepts associated with the economic analysis of environmental issues.
- Demonstrate knowledge of the relevant economic aspects of environmental problems and policy responses, including key stakeholders and important incentive effects and their determinants.

Team Debate Participation

Due: **Fortnightly**

Weighting: **25%**

There will be fortnightly team debates starting in Week 4, recurring on even weeks (except Week 10). The topic of the debate will be drawn from the methodology discussed in the previous weeks with respect to the "Big Problem". Teams participating in the debate will be drawn randomly the week prior. Individual presentation in the debate will account for 15%, while attending and participating in the discussion emanating from the debate will account for 10%.

A team (or any member) who fails to attend and participate in their debate will incur a mark of **zero**. This 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.

On successful completion you will be able to:

- Demonstrate cognisance of the different theoretical approaches, terminology and concepts associated with the economic analysis of environmental issues.
- Critically evaluate different theoretical approaches in the assessment and comparison of policy alternatives with respect to environmental issues.

The "Big Problem" Challenge

Due: **Week 13**

Weighting: **45%**

Rise to the challenge of "solving" a global environmental problem! You will work in teams to come up with the best theoretical analyses, evidence-based solutions and policy alternatives. This major task is an exercise in society coming together to solve "The Big Problem".

The "oral and written report" is an individual assignment but you will be asked to work in a team to achieve the best combined outcome. Consider a cooperative game of mark-maximising individuals, coordinating to achieve a socially optimal outcome. Your work will be strengthened by working with others.

You will receive a mark out of 45% for **your individual contribution** to this final "report". The report is due in Week 13. The "Big Problem", grouping and the format will be discussed in class and details provided on iLearn.

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.

On successful completion you will be able to:

- Demonstrate cognisance of the different theoretical approaches, terminology and concepts associated with the economic analysis of environmental issues.
- Demonstrate knowledge of the relevant economic aspects of environmental problems and policy responses, including key stakeholders and important incentive effects and

their determinants.

- Critically evaluate different theoretical approaches in the assessment and comparison of policy alternatives with respect to environmental issues.

Delivery and Resources

Classes

1 x 2 hour 'lectorial' per week. 1 x 1 hour, alternating 'online team discussion' or 'in-class team debate' every week. Details will be provided on iLearn on a weekly basis.

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

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

Recommended (but not required) Texts and/or Materials

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

While we will not be using the "textbook" rigourously, Perman *et.al.* combines a direct and intuitive approach to theoretical issues with an appropriate degree of rigour that is both informative and interesting.

Annotated notes form the basis of the material of the course, will be provided on iLearn after each class.

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

Teaching and Learning Strategy

The course is designed as a seminar/workshop and thus, requires participation and interaction. Discussions will be greatly encouraged during "lectorials".

ECON359 relies heavily on engaging, interactive learning where students should read the relevant material, think critically, ask questions and be prepared to answer questions posed by other students.

Unit Schedule

| <i>Unit Schedule</i> | <i>Text Chapter</i> |
|---|---------------------|
| Module 1: Overview of the Unit The Big Problem - Society's Challenge | |

| | |
|--|--------------------|
| Module 2: Introduction to Economics of the Environment The Sustainability Problem The Perspectives | 1, 2 |
| Module 3: Some Useful Methodologies (Welfare Economics, Cost-Benefit Analysis Environmental Valuation, Game Theory, etc) | 2, 4, 8, 9, 11, 12 |
| Module 4: Natural Resources (Renewables, Non-Renewables) | 14-17 |
| Module 5: The Big Solution - Society's Answer | (You) |

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

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>

If you are a Global MBA student contact globalmba.support@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

- Demonstrate cognisance of the different theoretical approaches, terminology and concepts associated with the economic analysis of environmental issues.
- Demonstrate knowledge of the relevant economic aspects of environmental problems and policy responses, including key stakeholders and important incentive effects and their determinants.
- Critically evaluate different theoretical approaches in the assessment and comparison of policy alternatives with respect to environmental issues.

Assessment tasks

- Policy Brief
- Team Debate Participation
- The "Big Problem" Challenge

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

- Demonstrate cognisance of the different theoretical approaches, terminology and concepts associated with the economic analysis of environmental issues.
- Demonstrate knowledge of the relevant economic aspects of environmental problems and policy responses, including key stakeholders and important incentive effects and their determinants.
- Critically evaluate different theoretical approaches in the assessment and comparison of policy alternatives with respect to environmental issues.

Assessment tasks

- Policy Brief
- Team Debate Participation
- The "Big Problem" Challenge

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

- Demonstrate knowledge of the relevant economic aspects of environmental problems and policy responses, including key stakeholders and important incentive effects and their determinants.
- Critically evaluate different theoretical approaches in the assessment and comparison of policy alternatives with respect to environmental issues.

Assessment tasks

- Policy Brief
- Team Debate Participation
- The "Big Problem" Challenge

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

- Demonstrate knowledge of the relevant economic aspects of environmental problems and policy responses, including key stakeholders and important incentive effects and their determinants.
- Critically evaluate different theoretical approaches in the assessment and comparison of policy alternatives with respect to environmental issues.

Assessment tasks

- Policy Brief
- Team Debate Participation
- The "Big Problem" Challenge

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.