ECON3059
Environmental Economics
Session 2, In person-scheduled-weekday, North Ryde 2023

Department of Economics

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General Information

Unit convenor and teaching staff
Wylie Bradford
wylie.bradford@mq.edu.au

Credit points
10

Prerequisites
130cp at 1000 level or above including ((ECON110 or ECON111 or ECON1020) and 20cp at 2000 level or above)

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. This unit examines 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:

ULO1: Identify and describe concepts associated with the economic analysis of environmental issues.
ULO2: Analyse the relevant economic aspects of environmental problems and policy responses, including key stakeholders and important incentive effects and their determinants.
ULO3: Critically evaluate different theoretical approaches in the assessment and
comparison of policy alternatives with respect to environmental issues.

**General Assessment Information**

**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](https://unitguides.mq.edu.au/unit_offerings/156592/unit_guide/print).

**Assessment Tasks**

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Hurdle</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quiz</strong></td>
<td>10%</td>
<td>No</td>
<td>Weekly</td>
</tr>
<tr>
<td><strong>Individual blog</strong></td>
<td>30%</td>
<td>No</td>
<td>Fortnightly, starting Week 3</td>
</tr>
<tr>
<td><strong>Personal case study</strong></td>
<td>40%</td>
<td>No</td>
<td>Weeks 4,8, 13</td>
</tr>
<tr>
<td><strong>Class discussion</strong></td>
<td>20%</td>
<td>No</td>
<td>Weeks 8,12</td>
</tr>
</tbody>
</table>

**Quiz**

Assessment Type 1: Quiz/Test

Indicative Time on Task 2: 1 hours

Due: **Weekly**

Weighting: **10%**

Short content quizzes will be held during each lectorial session covering the content presumed to have been read/watched prior to participating in the session.

On successful completion you will be able to:

- Identify and describe concepts associated with the economic analysis of environmental issues.
- Analyse the relevant economic aspects of environmental problems and policy responses, including key stakeholders and important incentive effects and their determinants.
Individual blog
Assessment Type 1: Reflective Writing
Indicative Time on Task 2: 12 hours
Due: Fortnightly, starting Week 3
Weighting: 30%

Weekly sessions will involve small-group discussion and responses to the provided online material. The group outputs will be synthesised and discussed by the group as a whole. Individuals will keep a record of their own reflections on the sessions in a personal blog on iLearn.

On successful completion you will be able to:

- Identify and describe concepts associated with the economic analysis of environmental issues.
- Analyse 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.

Personal case study
Assessment Type 1: Case study/analysis
Indicative Time on Task 2: 50 hours
Due: Weeks 4, 8, 13
Weighting: 40%

Students choose a real-world environmental case study to work on over the session. The case study is written up in the form of a wiki, and scaffolded feedback is provided at two points during the session with final grading based on the content at the end of week 13.

On successful completion you will be able to:

- Identify and describe concepts associated with the economic analysis of environmental issues.
- Analyse 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.

Class discussion

Assessment Type 1: Participatory task
Indicative Time on Task 2: 13 hours
Due: Weeks 8,12
Weighting: 20%

Twice during the session a discussion forum will be opened and starting topics provided. Students will be expected to contribute to the discussions and interact with peers in sharing perspectives and information.

On successful completion you will be able to:

- Analyse 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.

1 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.

2 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

Classes

1 x 2 hour 'ductory' per week. Note that as assessment is linked to lectorial participation, in-class sessions will not be recorded.

Required Texts and/or Materials


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. Assigned reading from the text is required for participation in lectorials.
The ebook version is recommended.

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/

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.

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

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://policies.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 Student Policies (https://students.mq.edu.au/support/study/policies). 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 Policy Central (https://policies.mq.edu.au) and use the search tool.

**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 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

**Academic Integrity**

At Macquarie, we believe academic integrity – 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 online writing and maths support, academic skills development and wellbeing consultations.

**Student Support**

Macquarie University provides a range of support services for students. For details, visit http://students.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
• Safety support to respond to bullying, harassment, sexual harassment and sexual assault
• Social support including information about finances, tenancy and legal issues
• Student Advocacy 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 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.