



GSE 845

Environmental Impact Assessment

S2 Day 2014

Dept of Environment & Geography

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Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

General Information

Unit convenor and teaching staff

Unit Convenor

Greg Walkerden

greg.walkerden@mq.edu.au

Contact via greg.walkerden@mq.edu.au

E7A 711

By appointment

Credit points

4

Prerequisites

Admission to MEnv or PGDipEnv or PGCertEnv or MEnvEd or PGDipEnvEd or PGCertEnvEd or MEnvMgt or PGCertEnvMgt or MEnvStud or PGDipEnvStud or MEnvPlan or PGCertEnvPlan or MWldMgt or PGDipWldMgt or PGCertWldMgt or MPP or PGDipPP or MSc in (Biodiversity Conservation or Remote Sensing and GIS or Environmental Health) or PGDipBSc in (Biodiversity Conservation or Remote Sensing and GIS or Environmental Health) or PGCertSc in (Biodiversity Conservation or Remote Sensing and GIS or Environmental Health) or MMarScMgt or MEnvLaw

Corequisites

Co-badged status

Unit description

This unit is designed to enhance understanding of how environmental impact assessment (EIA) is carried out in Australia and internationally. The focus is on the preparation and evaluation of environmental impact assessment statements, and on the design and performance of EIA systems. Environmental impact statements prepared for the New South Wales context, as well as for other jurisdictions in Australia and some overseas countries, will be examined.

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:

Identify and describe environmental issues that might be subject to EIA

Describe the framework (ie international, government, community, proponents, expertise) within which EIAs are carried out, and recognise the issues arising out of the interactions within this framework

Demonstrate an effective grasp of the international literature relevant to EIA

Begin to understand the roles of cultural, scientific, social, economic, and legal processes in EIA in all spheres of government within Australia and other nations

Develop a skill set and strategies for designing, managing and evaluating EIA processes and Environmental Impact Statement (EIS)

Critically analyse the EIA process and stakeholder responses to the identified environmental impacts of activities and/or developments

Evaluate policies and plans, proposed in the EIA process for the management of the impacts of activities and/or developments, from a sustainable development perspective

Understand the sustainable development implications of EIA processes adopted in different nations

General Assessment Information

Submission of Assignments

All written assignments (1, 2a and 3) must be submitted to Turnitin, via iLearn, by midnight on the due date.

Hard copies of assignments are to be handed in at class on the following day (1, 2a), or submitted to the Science Centre at the latest on the following day (in the after hours box is fine). Assignment 2b is a presentation assessed in class; please bring copies of each group's handouts and slides for use in marking.

On Turnitin, your assignments will be automatically compared to work of your classmates, previous students from Macquarie and other universities, with material available on the Internet, both freely available and subscription-based electronic journals. The results of the analysis will be sent only to the course convener, who will analyse the results in the light of the University's standard Policy on Plagiarism .

A cover sheet is required for all hard copy assignments submitted to the Science Centre or handed in at class.

How Do I Request an Extension ?

Extensions must be requested by email from the unit convener, Greg Walkerden, (greg.walkerden@mq.edu.au) prior to the assignment's due date (except in exceptional circumstances), and supported by appropriate documentation (e.g. a medical certificate).

Extensions will only be granted in writing (by email) at the discretion of the unit convener. Otherwise automatic penalties will apply. Assignments that are handed in late without an

extension or exceptional circumstances will not be marked if they are submitted more than 7 days after the due date. If submitted within 7 days, marks will be deducted for lateness at the rate of 5% of the possible mark per day late.

Assessment Tasks

Name	Weighting	Due
<u>1 - EIA System Review</u>	20%	Thursday 19th September
<u>2a - EIS Review</u>	40%	Friday 17th October
<u>2b - Group Presentation</u>	20%	Saturday 1st November
<u>3 - Personal Ethics in EIA</u>	20%	Monday 10th November

1 - EIA System Review

Due: **Thursday 19th September**

Weighting: **20%**

Review of an EIA System for Major Projects - 1,500 words.

Critically assess an EIA system used for assessment of major projects from the viewpoint of sustainability.

Describe the screening and assessment processes in the EIA system, and evaluate how well they support sustainable development, critically assessing (i) the EIA system's design and (ii) how it operates in practice.

Screening processes ask: should the environmental impacts of a project be assessed (using the major projects EIA system)? Assessment processes ask: what are the expected and possible impacts?, is the project acceptable as proposed?, and, how might problematic impacts be mitigated? Weaknesses may be obvious in either or both of system design (e.g. sensitivity to cumulative impacts) and implementation (e.g. systemic corruption).

On successful completion you will be able to:

- Identify and describe environmental issues that might be subject to EIA
- Describe the framework (ie international, government, community, proponents, expertise) within which EIAs are carried out, and recognise the issues arising out of the interactions within this framework
- Demonstrate an effective grasp of the international literature relevant to EIA
- Begin to understand the roles of cultural, scientific, social, economic, and legal processes in EIA in all spheres of government within Australia and other nations
- Develop a skill set and strategies for designing, managing and evaluating EIA processes

and Environmental Impact Statement (EIS)

- Critically analyse the EIA process and stakeholder responses to the identified environmental impacts of activities and/or developments
- Evaluate policies and plans, proposed in the EIA process for the management of the impacts of activities and/or developments, from a sustainable development perspective
- Understand the sustainable development implications of EIA processes adopted in different nations

2a - EIS Review

Due: **Friday 17th October**

Weighting: **40%**

Review of an Aspect of an EIS - 2,500 words

An EIS will be assigned to each project team, and each team will agree on which aspect, or part, of the EIS each team member will review for their individual assignment (2a). Each of the following could be the focus of an individual assignment: (i) ecosystem health; (ii) human health; (iii) economic impacts; (iv) community consultation / community engagement; and (v) management approach (including risk management).

The individual reports are to be objective and independent, and consider whether the project is *sustainable* development. Consider:

- whether the *scope* of the EIS's analysis is appropriate;
- whether the *methods* used to assess impacts (positive and negative) are appropriate;
- whether the *arguments* used to justify the proposal are sound.

On successful completion you will be able to:

- Identify and describe environmental issues that might be subject to EIA
- Begin to understand the roles of cultural, scientific, social, economic, and legal processes in EIA in all spheres of government within Australia and other nations
- Develop a skill set and strategies for designing, managing and evaluating EIA processes and Environmental Impact Statement (EIS)
- Evaluate policies and plans, proposed in the EIA process for the management of the impacts of activities and/or developments, from a sustainable development perspective
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2b - Group Presentation

Due: **Saturday 1st November**

Weighting: **20%**

Group Presentation on an EIS - with a 1-2 page Handout & Slides

Each team of students will be allocated an EIS. Each EIS will be considered by two groups.

One group will prepare an assessment of the EIS as if they were a team of planning consultants working for the proponent; their job will be to present the case **for** approving the project, based on the EIS. The second group will prepare an assessment of the EIS as if they were a team of planning consultants working for a community or environment group; their job will be to present the case **against** approving the project in its current form, based on the EIS. The teams' arguments for and against the projects will be based on the individual assessments developed by team members for part 2a of this assignment.

On successful completion you will be able to:

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- Critically analyse the EIA process and stakeholder responses to the identified environmental impacts of activities and/or developments
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3 - Personal Ethics in EIA

Due: **Monday 10th November**

Weighting: **20%**

Personal reflection on professional ethics in EIA - 1,250 words

Students will be presented with an ethical dilemma in EIA practice, e.g. having your work edited or reframed, so that, from your perspective, your findings are being misrepresented. The task will be to reflect on (i) the issues this raises for you personally, (ii) what you would do in this situation, (iii) what your underlying ethical intuitions are, and (iv) why you think they make sense. (Codes of conduct for EIA practice should be consulted as one point of reference.)

On successful completion you will be able to:

- Begin to understand the roles of cultural, scientific, social, economic, and legal processes in EIA in all spheres of government within Australia and other nations
- Develop a skill set and strategies for designing, managing and evaluating EIA processes and Environmental Impact Statement (EIS)

- Critically analyse the EIA process and stakeholder responses to the identified environmental impacts of activities and/or developments

Delivery and Resources

Technology used and required

Students will need access to a computer and basic office software (eg. Microsoft Office or OpenOffice), and course web pages to complete assessment tasks. (The computers in the EMC2 building are usually available.) The unit's webpage is on iLearn: <https://ilearn.mq.edu.au>

Recommended Texts

The following texts are recommended background reading:

Lawrence, D P 2003, *Environmental Impact Assessment: Practical solutions to recurrent problems*, Wiley, New Jersey. (Available on iLearn.)

Elliott, M. 2014, *Environmental Impact Assessment in Australia*, The Federation Press, Sydney.

Finding relevant journal articles

Citing peer reviewed research is essential for all assignments. [Google Scholar](#) is an excellent starting point.

The following databases of journal articles accessible through the [University Library](#) are also particularly recommended:

- Academic Search Premier
- JSTOR
- Scopus
- Web of Knowledge
- Web of Science

Access peer reviewed journal articles through the [University Library's website](#). Use MultiSearch.

See the Unit's [iLearn home page](#) for further sources of information.

Writing Guide and Referencing

All written work must comply with the [Graduate School of the Environment Writing Guide](#) for preparing written work. Refer to it for details of how to reference sources, amongst other things.

Unit Schedule

The course is taught in block mode - over 5 days of workshops spread throughout the session (one Friday and four Saturdays). See the Macquarie University Timetable (<https://timetables.mq.edu.au>), search using "GSE 845" for details of dates and rooms.

See the Unit's iLearn page for details of the program.

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.html>

Grading Policy <http://mq.edu.au/policy/docs/grading/policy.html>

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

Grievance Management Policy http://mq.edu.au/policy/docs/grievance_management/policy.html

Disruption to Studies Policy 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/

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://informatics.mq.edu.au/help/>.

When using the University's IT, you must adhere to the [Acceptable Use Policy](#). The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

Learning outcomes

- Identify and describe environmental issues that might be subject to EIA
- Describe the framework (ie international, government, community, proponents, expertise) within which EIAs are carried out, and recognise the issues arising out of the interactions within this framework
- Demonstrate an effective grasp of the international literature relevant to EIA
- Begin to understand the roles of cultural, scientific, social, economic, and legal processes in EIA in all spheres of government within Australia and other nations
- Develop a skill set and strategies for designing, managing and evaluating EIA processes and Environmental Impact Statement (EIS)
- Critically analyse the EIA process and stakeholder responses to the identified environmental impacts of activities and/or developments
- Evaluate policies and plans, proposed in the EIA process for the management of the impacts of activities and/or developments, from a sustainable development perspective
- Understand the sustainable development implications of EIA processes adopted in different nations

Assessment tasks

- 1 - EIA System Review
- 2a - EIS Review
- 2b - Group Presentation

PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

Learning outcomes

- Identify and describe environmental issues that might be subject to EIA
- Begin to understand the roles of cultural, scientific, social, economic, and legal processes in EIA in all spheres of government within Australia and other nations
- Develop a skill set and strategies for designing, managing and evaluating EIA processes and Environmental Impact Statement (EIS)
- Critically analyse the EIA process and stakeholder responses to the identified environmental impacts of activities and/or developments
- Evaluate policies and plans, proposed in the EIA process for the management of the impacts of activities and/or developments, from a sustainable development perspective
- Understand the sustainable development implications of EIA processes adopted in different nations

Assessment tasks

- 1 - EIA System Review
- 2a - EIS Review
- 2b - Group Presentation

PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

Learning outcomes

- Identify and describe environmental issues that might be subject to EIA
- Describe the framework (ie international, government, community, proponents, expertise) within which EIAs are carried out, and recognise the issues arising out of the interactions within this framework
- Demonstrate an effective grasp of the international literature relevant to EIA
- Develop a skill set and strategies for designing, managing and evaluating EIA processes and Environmental Impact Statement (EIS)
- Critically analyse the EIA process and stakeholder responses to the identified environmental impacts of activities and/or developments
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Assessment tasks

- 1 - EIA System Review
- 2a - EIS Review
- 2b - Group Presentation

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcome

- Understand the sustainable development implications of EIA processes adopted in different nations

Assessment tasks

- 2a - EIS Review
- 2b - Group Presentation
- 3 - Personal Ethics in EIA

PG - Engaged and Responsible, Active and Ethical Citizens

Our postgraduates will be ethically aware and capable of confident transformative action in relation to their professional responsibilities and the wider community. They will have a sense of connectedness with others and country and have a sense of mutual obligation. They will be able

to appreciate the impact of their professional roles for social justice and inclusion related to national and global issues

This graduate capability is supported by:

Learning outcome

- Understand the sustainable development implications of EIA processes adopted in different nations

Assessment task

- 3 - Personal Ethics in EIA

PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

Learning outcomes

- Develop a skill set and strategies for designing, managing and evaluating EIA processes and Environmental Impact Statement (EIS)
- Critically analyse the EIA process and stakeholder responses to the identified environmental impacts of activities and/or developments
- Understand the sustainable development implications of EIA processes adopted in different nations

Assessment tasks

- 2a - EIS Review
- 2b - Group Presentation
- 3 - Personal Ethics in EIA

Assessment Standards

Requirements to Complete this Unit Satisfactorily

In order to successfully complete any GSE unit students must:

- *attend at least 80% of scheduled lectures;*
- *participate in class discussions, workshops and activities;*
- *complete all assessment tasks; and*
- *reach a satisfactory postgraduate level of achievement in assignments or other assessment as determined by the Head of Department.*

Assessment Standards

Many specific aspects of your work are important (as identified in the following standards), but it is the overall quality of the completed work that is important. Assignments will be assessed holistically. The following bands are 'ideal types': lists of the features of typical examples of assignments at each level.

The standard of each assignment is obviously important - good grades demonstrate that your work is competent, proficient or excellent. But from a learning perspective, it is equally important to look at your own work developmentally: to look for gradual improvement, deepening insight, and broadening competency. Grades for assignments assess the standard of your work.

Comments on assignments are intended to be helpful developmentally: indicating what you have achieved, and how you could improve your work.

For a grade of High Distinction ($\geq 85\%$)

- use and synthesis of a variety of high quality sources not mentioned in class or on reading lists;
- considered use of dictionary and technical terms, diagrams and/or other sources to define and set the topic in context;
- incisive and decisive specification of the key issues;
- prioritisation and exposition of the key issues in a clear and logical sequence;
- relevant contrary arguments are identified and effectively dealt with;
- discussion forms a sound basis for clear, justified and comprehensive recommendations and conclusions;
- independence of thought and obvious originality;
- demonstrated ability to weigh arguments and form clear, considered personal viewpoints;
- proficient use of the English language;
- references presented at 'publishable' standard.

Overall, your work demonstrates, in an interesting or challenging way, originality based on proficiency in all the learning objectives.

For a grade of Distinction (75-84%)

- use and synthesis of some high quality sources not mentioned in class or on reading lists, and reference to some others;
- adequate use of dictionary and technical terms, diagrams and/or other sources to define and set the topic in context;
- clear specification of the key issues;
- key issues generally presented in a logical sequence;
- relevant contrary arguments raised but might not be fully resolved;

- discussion leads to clear and justified recommendations and conclusions;
- independence of thought and significant originality;
- general ability to weigh arguments and form personal viewpoints;
- clear use of the English language;
- references largely error free.

Overall, your work demonstrates a comprehensive awareness and understanding of the topic of the assignment.

For a grade of Credit (65-74%)

- use and synthesis of some high quality sources, and reference to some additional good quality material;
- use of dictionary and technical terms to define and contextualise the topic;
- overall awareness of the key issues;
- the selected key issues generally presented in a logical sequence;
- some contrary arguments raised with inadequate appreciation of their significance;
- a clear statement of conclusions and recommendations;
- some independent thought but limited originality;
- difficulties in weighing arguments and presenting personal viewpoints;
- sometimes proficient and always passable use of the English language;
- some errors of omission or detail in presentation of references.

Overall, your work demonstrates the ability to use and apply fundamental concepts and skills.

For a grade of Pass (50-64%)

- limited use and synthesis of good quality sources;
- use of dictionary or vernacular definitions in an attempt to identify and set the topic in context;
- some awareness of the key issues;
- some attempt to order the argument, but flaws in logical discipline;
- few contrary arguments raised and little appreciation of their significance or resolution;
- a generally clear statement of conclusions and recommendations;
- little independent thought and minimal originality;
- little weighing of argument and lack of clarity in personal viewpoints;
- passable use of the English language;
- some errors of omission or detail in presentation of references.

Overall, your work satisfies the basic learning requirements of the assignment.

For a grade of Fail (45-49%)

- at the lower end of the acceptable range for most criteria for a grade of 4.

For a lower grade of Fail (26-44%)

- lack of awareness of sources or what the question is about;
- confused definitions;
- general inability to identify the key issues;
- inability to order the argument;
- few, if any, contrary arguments raised and no appreciation of their significance or resolution;
- inadequate statement of conclusions or recommendations;
- no independent thought or originality;
- no ability to weigh arguments or form personal viewpoints.

For a grade of Serious Fail (< 26%)

- no reference to suggested sources, generally inappropriate use of materials
- no attempt at definitions;
- no awareness of key issues, such that the paper fails to address or answer the question;
- arguments unformulated, many errors, unsupported assertions, unjustified generalisations;
- contrary arguments impugned or ignored;
- inconclusive outcome to the paper;
- no independent thought, any originality likely to be illogical;
- inability to weigh arguments, personal viewpoints absent or inadequate.

Source: Neil DT, Wadley DA, and Phinn SR 1999, 'A generic framework for criterion-referenced assessment of undergraduate essays', *Journal of Geography in Higher Education*, 23(3) pp. 303-325. See also: Neil DT, Wadley DA, and Phinn SR 1998, *Assessment Guidelines*, School of Geography, Planning and Environmental Management, The University of Queensland.

Used with permission. This text is a very minor adaptation of an excerpt from Neil, Wadley and Phinn (1998). See the full text in either version for further very useful background on these standards, and the criteria they reflect.

Academic Honesty

It is a fundamental principle 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.

All students should familiarise themselves with [Macquarie University's Academic Honesty Policy](https://unitguides.mq.edu.au/unit_offerings/1698/unit_guide/print).

The Department recommends that students familiarise themselves with the [explanation of plagiarism](#) on the Georgetown University Honor Council website which discusses plagiarism in an easy to understand and comprehensive manner.

Teaching and Learning Strategy

The teaching process has four main elements:

1. Lectures that introduce basic concepts.
2. Talks from guest lecturers that convey the complexities of environmental impact assessment, in practice, in diverse settings.
3. Workshop sessions that provide opportunities for experiential learning.
4. Assignments that require students to investigate diverse aspects of EIA and practice key skills.

Students are expected to:

- participate in workshop activities in small groups;
- read set readings in advance for classes;
- follow current developments with regard to environmental impact assessment in the media; and
- contribute to a group presentation evaluating a substantial Environmental Impact Statement.

Lectures from GSE staff and guest lecturers will introduce students to:

- contexts, frames for, and history of, environmental impact assessment,
- scoping and design of environmental impact assessments,
- project management of environmental impact assessments,
- reviewing environmental impact assessments, and
- critiques of current practice and options for improvement.

These issues will be covered through a mixture of theory and case studies.

Changes since First Published

Date	Description
16/01/2014	The Prerequisites was updated.