



ENVS605

Australian Environmental Futures

S2 External 2019

Dept of Environmental Sciences

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General Information

Unit convenor and teaching staff

Unit Convenor

Kerrie Tomkins

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Peter Davies

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Greg Walkerden

greg.walkerden@mq.edu.au

Credit points

4

Prerequisites

Admission to MEnv or MEnvPlan or MPlan or GradCertEnvPlan or GradDipEnv or GradCertEnv or MSusDev or GradDipSusDev or GradCertSusDev

Corequisites

Co-badged status

GEOP605

Unit description

This unit is for students from non-cognate disciplines interested in pursuing postgraduate research in environment and sustainability. These units introduce students to core environmental concepts and topics by enabling them to participate in selected undergraduate units. This unit introduces and critically examines key environmental, social, economic, cultural and political processes and relationships that underpin environmental management and sustainability in urban, rural and remote Australia. The unit is accessible for students with degrees from a broad range of backgrounds, and develops foundational knowledge and skills relating to environment and sustainability in order to facilitate higher level studies.

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:

Apply knowledge of concepts and integrated discipline approaches at multiple scales to

manage Australia's environmental futures

Explain the physical, social and political drivers and their interrelationships associated with contemporary environmental management challenges

Carry out independent research in environmental management and the practical applications of that research.

Write for different target audiences and critically read, think about, interpret and evaluate environmental and social science data.

Develop professional skills in the practice of environmental management.

Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Environmental Question</u>	20%	No	6 Sept 2019
<u>Council Business Paper</u>	35%	No	27 Sept 2019
<u>Plan of Management</u>	45%	No	25 Oct 2019 (presentation); 10 Nov 2019 (written plan)

Environmental Question

Due: **6 Sept 2019**

Weighting: **20%**

The aim of this assessment is to use different types of maps and additional data to answer an environmental management question, and to present this analysis in a map format with up to 2 pages of supporting text. Students can choose which question they would like to focus on for the assessment out of four hypothetical, but real-world challenges that are facing Lane Cove National Park and surrounds. Much of the mapping work will be done in the tutorials in Weeks 2 and 3, with additional research to be done in the students own time.

Maximum word length: 750 words, excluding references

On successful completion you will be able to:

- Apply knowledge of concepts and integrated discipline approaches at multiple scales to manage Australia's environmental futures
- Write for different target audiences and critically read, think about, interpret and evaluate environmental and social science data.

Council Business Paper

Due: **27 Sept 2019**

Weighting: **35%**

The aim of this assessment is to first undertake a critical review of the structure of three different Australian local government business papers, and then prepare your own business paper for a local council or one of its committees on the topic of: How to plan for more green spaces in urban areas to enhance liveable and sustainable cities. Students will gain experience in writing using a standard report template.

Maximum page length: 5 pages in total, excluding references, tables, images, end/footnotes and appendices.

On successful completion you will be able to:

- Apply knowledge of concepts and integrated discipline approaches at multiple scales to manage Australia's environmental futures
- Explain the physical, social and political drivers and their interrelationships associated with contemporary environmental management challenges
- Write for different target audiences and critically read, think about, interpret and evaluate environmental and social science data.
- Develop professional skills in the practice of environmental management.

Plan of Management

Due: **25 Oct 2019 (presentation); 10 Nov 2019 (written plan)**

Weighting: **45%**

For this assessment, students will work in small groups of ~5-6 students to prepare a Draft Plan of Management for a local park of their choice, considering a diverse range of issues such as, recreational amenity, safety, waste management, stormwater management and biodiversity conservation. The assessment is split into two tasks which will be assessed separately for each group:

Task 1. Prepare and present a project proposal for comment and feedback (10 %)

- The presentations for internal students will be held in the workshops in Week 9, hence attendance is mandatory. External students will give their presentations during the October on-campus session.
- Time limit: ~ 5 minutes per group depending on numbers, plus additional time for questions and discussion.

Task 2. Prepare a written Draft Plan of Management for the local park (35 %)

- Maximum word length: 5,500 words per group, excluding references

Individual contributions to the two tasks will be assessed using the SparkPlus peer review software. The results of the peer reviews will be used to convert the group mark for the presentations and draft plan into individual marks for each student.

On successful completion you will be able to:

- Apply knowledge of concepts and integrated discipline approaches at multiple scales to manage Australia's environmental futures
- Carry out independent research in environmental management and the practical applications of that research.
- Write for different target audiences and critically read, think about, interpret and evaluate environmental and social science data.
- Develop professional skills in the practice of environmental management.

Delivery and Resources

Modules

This unit is delivered across three modules, which will be led by different lecturers:

Module 1 - Australia's unique environment and the need to manage impacts. This module will be delivered by Dr Kerrie Tomkins and will examine some of the physical environmental management challenges posed by people and Australia's unique environment, such as the impacts of bushfire management on vegetation communities, and the impacts of urban areas on streams.

Module 2 - Role of environmental legislation and policy. This module will be delivered by A/ Prof Peter Davies and will focus on how law and policy impacts on the environment through strategic planning, statutory development assessments and day to day decision-making. This module will tie together your understanding of the physical environment and some of the tools that are used to prevent or manage environmental impacts.

Module 3 - Politics, management and the environment. This module will be delivered by Dr Greg Walkerden and will explore several themes in environmental management and decision-making including: environmental management systems, stakeholder engagement, negotiation, integration and political advocacy. This module will demonstrate the social/political challenges and complexities of environmental management.

Blended Learning and Experiential Learning Approaches

This unit uses multiple approaches in teaching and delivery, including blended learning and experiential learning. Blended learning combines diverse teaching and learning methods in digital and face-to-face learning environments. For example, reading texts, watching videos, listening to audio resources, participating in class activities and online discussion forums. Experiential learning enables students to learn through first-hand experiences, such as field trips. Examples of these include the campus creek walk in Module 1, and a visit to the Herring Road/ Macquarie Park precinct in Module 2.

Unit Schedule

Below is the planned Unit Schedule. The content in the unit will be delivered through weekly lectures and workshops. The workshops include in-class and field based learning to enable students to understand and apply various techniques used to manage the environment. All students (internal and external) should refer to the iLearn site for printable versions of the unit schedule including the relevant assessment due dates. Any updates or changes will be announced through iLearn.

Week 1 - Introduction to the unit and brief overview of mega trends (Dr Kerrie Tomkins)

- No workshops (2hrs)

Week 2 - Our dry climate, droughts and flooding rains (Dr Kerrie Tomkins)

- Internal students: Tutorial on using maps and other data (2hrs)

Week 3 - Fragile soils and flammable vegetation (Dr Kerrie Tomkins)

- Internal students: Start making your own map for Assessment 1 (2hrs)

Week 4 - Ecosystems and habitats under threat (Dr Kerrie Tomkins)

- Internal students: Campus creek walk (external students are welcome to attend)
- External students: On-campus session for Wk 2 and 3 tutorials (3hrs)

Week 5 - Background and history of environmental law and policy (A/Prof Peter Davies)

- Internal students: Tutorial on LEPs and planning controls (2hrs)

Week 6 - Land use zoning, development and environmental protection (A/Prof Peter Davies)

- Internal students: Tutorial on urban density and development (2hrs)

Week 7 - Strategic planning and its impact on the future of cities (A/Prof Peter Davies)

- Internal students: Field trip to the Herring Rd/Macquarie Park Precinct (external students are welcome to attend) (2hrs)

- External students: On-campus session for Wk 5 and 6 tutorials (3hrs)

Week 8 - Environmental Management Systems and plans of management (Dr Greg Walkerden)

- Internal students: Start work in small groups on your plan of management for Assessment 3 (2hrs)

Week 9 - Guest speaker from a local council (TBA)

- Internal students: Group presentations of the project proposals (2hrs)

Week 10 - Stakeholders and stakeholder analysis (Dr Greg Walkerden)

- Internal students: Tutorial on stakeholder analysis (2hrs)

Week 11 - Negotiation and other decision-making processes (Dr Greg Walkerden)

- Internal students: Negotiation role play (2hrs)
- External students: On-campus session including the group presentations (3hrs)

Week 12 - Integration in environmental decision-making (Dr Greg Walkerden)

- Internal students: Tutorial on technical/political/managerial triangulation (2 hrs)

Week 13 - Practical politics

- Internal students: Tutorial on reading political subtexts (2hrs)

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

Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcome

- Apply knowledge of concepts and integrated discipline approaches at multiple scales to manage Australia's environmental futures

Assessment tasks

- Environmental Question
- Council Business Paper
- Plan of Management

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- Apply knowledge of concepts and integrated discipline approaches at multiple scales to manage Australia's environmental futures
- Explain the physical, social and political drivers and their interrelationships associated with contemporary environmental management challenges
- Carry out independent research in environmental management and the practical applications of that research.
- Write for different target audiences and critically read, think about, interpret and evaluate environmental and social science data.
- Develop professional skills in the practice of environmental management.

Assessment tasks

- Environmental Question
- Council Business Paper
- Plan of Management

Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

Learning outcomes

- Carry out independent research in environmental management and the practical

applications of that research.

- Write for different target audiences and critically read, think about, interpret and evaluate environmental and social science data.
- Develop professional skills in the practice of environmental management.

Assessment tasks

- Environmental Question
- Council Business Paper
- Plan of Management

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

- Apply knowledge of concepts and integrated discipline approaches at multiple scales to manage Australia's environmental futures
- Explain the physical, social and political drivers and their interrelationships associated with contemporary environmental management challenges
- Carry out independent research in environmental management and the practical applications of that research.
- Write for different target audiences and critically read, think about, interpret and evaluate environmental and social science data.

Assessment tasks

- Environmental Question
- Council Business Paper
- Plan of Management

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

- Apply knowledge of concepts and integrated discipline approaches at multiple scales to manage Australia's environmental futures
- Explain the physical, social and political drivers and their interrelationships associated with contemporary environmental management challenges
- Carry out independent research in environmental management and the practical applications of that research.
- Write for different target audiences and critically read, think about, interpret and evaluate environmental and social science data.
- Develop professional skills in the practice of environmental management.

Assessment tasks

- Environmental Question
- Council Business Paper
- Plan of Management

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

- Apply knowledge of concepts and integrated discipline approaches at multiple scales to manage Australia's environmental futures
- Carry out independent research in environmental management and the practical applications of that research.
- Develop professional skills in the practice of environmental management.

Assessment tasks

- Environmental Question
- Council Business Paper
- Plan of Management

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcomes

- Explain the physical, social and political drivers and their interrelationships associated with contemporary environmental management challenges
- Write for different target audiences and critically read, think about, interpret and evaluate environmental and social science data.
- Develop professional skills in the practice of environmental management.

Assessment tasks

- Environmental Question
- Council Business Paper
- Plan of Management

Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation's historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

Learning outcome

- Explain the physical, social and political drivers and their interrelationships associated with contemporary environmental management challenges

Assessment task

- Council Business Paper

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

- Explain the physical, social and political drivers and their interrelationships associated with contemporary environmental management challenges
- Carry out independent research in environmental management and the practical applications of that research.

Assessment tasks

- Council Business Paper
- Plan of Management

Changes from Previous Offering

This unit has been redesigned from previous offerings. It includes an introductory module on environmental law and policy with a corresponding assessment task to integrate this knowledge. The politics, management and environment module has been completely revised from 2018, with a new assessment task on preparing a Management Plan now included.

Assessment Submission and Marking

Assessment submission

This unit uses electronic submission and marking. The required format and mode of submission is as follows. Note: there is no requirement to submit hard copies as well. Further details on how to use Turnitin will be provided separately.

Assessment 1 Environmental Management Question - to be submitted through Turnitin (See iLearn for the relevant Assessment Link)

Assessment 2 Council Business Paper - to be submitted through Turnitin (See iLearn for the relevant Assessment Link)

Assessment 3 Draft Plan of Management - written report to be submitted through Turnitin (See iLearn for the relevant Assessment Link)

Penalties for late submission of assessment tasks

Assessment tasks are to be submitted on the date listed under the Assessment Tasks section of this Unit Guide. A penalty of 10 % will be deducted off the final mark for the assessment task for each day that the assessment task is late. For example, for an assessment worth 20 %, a penalty of 2 marks will be deducted for each 24 hour period that the assessment is late.

Requests for Special Consideration

Requests for extensions or other special consideration must be requested in advance and in writing by submitting a request to ask.mq.edu.au. In the request, please ensure that you meet

the criteria. You will need to have a valid reason and explicitly state this, and provide supporting evidence where possible, such as a medical certificate.

Marking rubrics for assessments

Further information on the assessments, including marking rubrics for each assessment task, will be provided on iLearn. The rubrics will be used to mark each assessment and award marks accordingly. Feedback will also be provided through the online marking (GradeMark).

General assessment criteria

The general assessment criteria that is used to assess the overall attainment of knowledge, skills and abilities includes the following.

General Assessment Criteria	Expectation of achievement
<ul style="list-style-type: none"> Addressing the task that is specified (or answering the question that is asked) for each assessment, including staying within the word limit unless otherwise specified. 	<ul style="list-style-type: none"> Students are able to complete the assessments as instructed.
<ul style="list-style-type: none"> Demonstration of knowledge and research skills through written material and verbal presentations. 	<ul style="list-style-type: none"> Students have engaged in the subject matter and task. Students can show understanding of the topic through an analysis and well-developed discussion of the topic.
<ul style="list-style-type: none"> Demonstration of independent thinking through written material and verbal presentations. 	<ul style="list-style-type: none"> Students are able to demonstrate in-depth thinking through discussion that places the topic in the broader context. Students are able to demonstrate initiative and independent contributions through new ideas.
<ul style="list-style-type: none"> Appropriate use and citation of a wide range of relevant literature, including scientific research papers and reports. Citation of references within the text and reference list is correct and consistent, with no abbreviations. 	<ul style="list-style-type: none"> Students will undertake thorough literature searches and demonstrate appropriate selection of relevant articles in support of their arguments.
<ul style="list-style-type: none"> Demonstration of good planning with a clear structure, headings, and a logical argument based firmly on the literature cited. 	<ul style="list-style-type: none"> Students are able to structure written (and verbal) work to convey ideas clearly and logically.
<ul style="list-style-type: none"> Presentation of legible work with: correct grammar and spelling, correct use of professional terminology as appropriate, and correct use of SI units, abbreviations and acronyms. 	<ul style="list-style-type: none"> Students will submit work that is presented in a professional manner.

<ul style="list-style-type: none"> • Figures, tables and other supporting information are legible and necessary, with reference to these in the text. Full and appropriate captions are included on each as well as the source where relevant. 	<ul style="list-style-type: none"> • Students are able to use figures and tables to summarise or present information and data effectively.
<ul style="list-style-type: none"> • Effective communication of outcomes. 	<ul style="list-style-type: none"> • Students are able to get their message across clearly and concisely.

Field work, health and safety

This unit includes opportunities to visit sites on and off campus as part of the workshop program.

The safety of you and those around you is our highest priority. Consequently, ALL participants in fieldwork activities are obliged to work and behave appropriately in the field, and to take care to protect their own health, safety and welfare and that of fellow fieldwork participants. You are required to follow instructions from the Fieldwork Leader at all times.

Prior to the fieldwork, you must let the Fieldwork Leader know of any allergies, special dietary requirements or medical considerations that may affect your ability to participate in fieldwork. You will need to complete a declaration of a known medical condition form, outlining a treatment plan for your condition. Details of your responsible next of kin must also be provided in case of emergencies.

You are required to wear and carry clothing and footwear as appropriate to the fieldwork situation. Your Fieldwork Leader will advise you as to what these are prior to the fieldtrip. Irrespective of the activity, footwear must be worn. For terrestrial fieldwork, ankle to knee protection must be worn either in the form of either long trousers or gaiters. For marine fieldwork, appropriate clothing to protect against sunburn and exposure should be worn. For all fieldwork activities, a hat, sunscreen, insect repellent and items to protect against unexpected weather changes, such as rain & cold, are strongly recommended. The Fieldwork Leader reserves the right to exclude anyone that is ill-equipped from the activity.

If you are taking any medication, please ensure that you take sufficient supplies with you on the field trip. The University's staff are unable, by law, to provide this to you. This includes pain relief, such as panadol or nurofen, cold and flu medication and anti-histamines for allergies.

If you need to leave the field location for any reason prior to completion of the scheduled activities, you must first inform the Fieldwork Leader. In the event of illness or injury, please let the Fieldwork Leader know immediately. All injury's or incidents must be reported via the on-line reporting system: <http://www.ohs.mq.edu.au/form5a.php>

Alcohol is a significant contributing factor in many incidents and acts of prejudicial conduct. Alcohol must not be consumed when undertaking fieldwork activities or when using a motor vehicle/machinery. After-hours consumption of alcohol is at the discretion of the Fieldwork Leader. Anyone acting irresponsibly or in any way deemed to be a danger to themselves or others by the Fieldwork Leader will be required to leave the field trip, return to Sydney at their own expense and report to the Head of Department. The consequences of this may include

exclusion from the Unit of study or your Degree program.

For more information, contact:

Russell Field

Fieldwork Manager (Dept of Environmental Sciences)

Macquarie University NSW 2109.

(W) 98508341

Unit Homepage

This unit has an iLearn home page that can be accessed through ilearn.mq.edu.au. It contains links to the unit guides, the unit schedules, assessments and a discussion page. As the semester progresses, it will be used to circulate information and other materials related to the course, field trips and assessments.