



# ENVS819

## Environmental Health

S2 Evening 2017

*Dept of Environmental Sciences*

### Contents

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<u>General Information</u>	2
<u>Learning Outcomes</u>	2
<u>Assessment Tasks</u>	3
<u>Delivery and Resources</u>	7
<u>Unit Schedule</u>	8
<u>Policies and Procedures</u>	9
<u>Graduate Capabilities</u>	10
<u>Changes from Previous Offering</u>	14

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#### **Disclaimer**

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## General Information

Unit convenor and teaching staff

lecturer and unit convenor

Frank Siciliano

[frank.siciliano@mq.edu.au](mailto:frank.siciliano@mq.edu.au)

Contact via email

12 Wallys Walk room 519

during semester Thursday 2-5pm or by appointment

Credit points

4

Prerequisites

Admission to MEnv or MSc or GradDipEnv or GradCertEnv or MEnvPlan or MPlan or MPH or MSusDev or GradDipSusDev or GradCertSusDev or MWldMgt or MMarScMgt or MConsBiol or GradDipConsBiol or MDevStud

Corequisites

Co-badged status

Unit description

This unit explores those aspects of human health determined by physical, chemical, biological and social components of the environment. The unit explores this relationship through a broad range of local, regional, national and international topics including the interrelationships between physical, biological and socio-economic environments; population and environmental health measures and methods; identifying the causes, impacts and mitigation of environmental hazards; the regulatory framework covering various aspects of local and national environmental health; and emerging issues in environmental health such as climate change and globalisation.

## 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:

Develop a broad understanding and knowledge of the nature of environmental health issues at different geographic scales - local, regional, national and global.

Develop critical, analytical and integrative thinking skills by class discussions and

reading key environmental health reports, journals, and internet resources.

Prepare and present a detailed research investigation on a specific environmental health topic utilising advanced science communication skills and considered opinion highlighting the nature of the issue, population affected, key findings and recommendations.

Gain the confidence and capacity to contribute to public discourse on a range of environmental health issues.

Appreciate the interdisciplinary nature of environmental health professionals skills and knowledge in the context of other units of study.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#"><u>Online module 1 review</u></a>	10%	No	18 August 2017 @ 9pm
<a href="#"><u>Online module 2 review</u></a>	10%	No	Friday 8 September 2017 @ 9pm
<a href="#"><u>Research project proposal</u></a>	15%	No	Friday 22 September 2017 @ 9pm
<a href="#"><u>Online module 3 review</u></a>	10%	No	Friday 20 October 2017 @ 9pm
<a href="#"><u>Research project presentation</u></a>	15%	No	Thursday 2 November @ 6pm
<a href="#"><u>Research project report</u></a>	40%	No	Friday 10 November 2017 @ 9pm

### Online module 1 review

Due: **18 August 2017 @ 9pm**

Weighting: **10%**

Based on readings and online Audio Visual material provided for this module (**Healthy urban planning and housing**), each student must provide responses to a series of questions that demonstrate completion of the module and an understanding of the issues and challenges related to this topic.

**Maximum 300 words.**

On successful completion you will be able to:

- Develop a broad understanding and knowledge of the nature of environmental health issues at different geographic scales - local, regional, national and global.
- Gain the confidence and capacity to contribute to public discourse on a range of environmental health issues.

- Appreciate the interdisciplinary nature of environmental health professionals skills and knowledge in the context of other units of study.

## Online module 2 review

Due: **Friday 8 September 2017 @ 9pm**

Weighting: **10%**

Based on readings and online Audio Visual material provided for this module (**Food safety**), each student must provide responses to a series of questions that demonstrate completion of the module and an understanding of the issues and challenges related to this topic.

**Maximum 300 words.**

On successful completion you will be able to:

- Develop a broad understanding and knowledge of the nature of environmental health issues at different geographic scales - local, regional, national and global.
- Gain the confidence and capacity to contribute to public discourse on a range of environmental health issues.
- Appreciate the interdisciplinary nature of environmental health professionals skills and knowledge in the context of other units of study.

## Research project proosal

Due: **Friday 22 September 2017 @ 9pm**

Weighting: **15%**

This is the first of three related assessment tasks for ENV5819.

With the major research project in mind (Assessment 6), this Research project proposal requires each student to submit an outline of a selected contemporary environmental health topic with at least five (5) relevant references.

One relevant case study is required to highlight the issue being researched.

The proposal should be used to develop a broad familiarity with the selected topic which will be explored in greater detail in the final major research project in mind (Assessment 6).

**500 words plus five (5) references.**

On successful completion you will be able to:

- Develop a broad understanding and knowledge of the nature of environmental health issues at different geographic scales - local, regional, national and global.
- Develop critical, analytical and integrative thinking skills by class discussions and reading key environmental health reports, journals, and internet resources.
- Prepare and present a detailed research investigation on a specific environmental health

topic utilising advanced science communication skills and considered opinion highlighting the nature of the issue, population affected, key findings and recommendations.

- Gain the confidence and capacity to contribute to public discourse on a range of environmental health issues.
- Appreciate the interdisciplinary nature of environmental health professionals skills and knowledge in the context of other units of study.

## Online module 3 review

Due: **Friday 20 October 2017 @ 9pm**

Weighting: **10%**

Based on readings and online Audio Visual material provided for this module (**Environmental justice**), each student must provide responses to a series of questions that demonstrate completion of the module and an understanding of the issues and challenges related to this topic.

**Maximum 300 words.**

On successful completion you will be able to:

- Develop a broad understanding and knowledge of the nature of environmental health issues at different geographic scales - local, regional, national and global.
- Gain the confidence and capacity to contribute to public discourse on a range of environmental health issues.
- Appreciate the interdisciplinary nature of environmental health professionals skills and knowledge in the context of other units of study.

## Research project presentation

Due: **Thursday 2 November @ 6pm**

Weighting: **15%**

This is the second of three related assessment tasks for ENV5819 and focuses on public speaking and communication.

Considering the major research project report, each student is required to stand and deliver a clear and concise **3 minute oral presentation** to the class explaining the research topic highlighting any key issues, obstacles and challenges. Each student should be prepared to answer questions from the class at the end of each presentation. Powerpoint or Adobe PDF can be used to support the oral presentation but this is limited to 1 static slide only with no transitions, sound or animations allowed.

In addition to the oral presentation, each student is required to prepare and submit an informative (**1 x A4 page**) **infographic** related to the research topic.

For tips and examples refer to the "3 minute thesis" references:

- [http://student.mq.edu.au/opportunities/3\\_minute\\_thesis/](http://student.mq.edu.au/opportunities/3_minute_thesis/)
- <https://threeminutethesis.uq.edu.au/>

**5% for oral presentation (3 minutes maximum)**

**plus**

**10% for infographic (1 x A4 page).**

On successful completion you will be able to:

- Develop critical, analytical and integrative thinking skills by class discussions and reading key environmental health reports, journals, and internet resources.
- Prepare and present a detailed research investigation on a specific environmental health topic utilising advanced science communication skills and considered opinion highlighting the nature of the issue, population affected, key findings and recommendations.
- Gain the confidence and capacity to contribute to public discourse on a range of environmental health issues.
- Appreciate the interdisciplinary nature of environmental health professionals skills and knowledge in the context of other units of study.

## Research project report

Due: **Friday 10 November 2017 @ 9pm**

Weighting: **40%**

This is the final component of each students individual environmental health research and builds on Assessment 3 (Research project proposal) and Assessment 5 (oral presentation and infographic).

The report should include the following sections and components:

- Title page
- Abstract (half page maximum)
- Table of Contents
- Introduction
- Detailed analysis of the issue
- Case study
- Conclusion
- References (correct style required e.g. Harvard)
- Appendices (where appropriate)

- Line spacing should be 1.5
- Page numbers

Tables, maps, diagrams, photos, etc. can be used in the report where appropriate. They can be inserted either in-text or compiled in an appendix. Ensure all graphics have a caption and are correctly referenced. Ensure that all graphics are referred to in the text of the report.

**3,000 words maximum** (word limit does not include the reference list, tables, figures or appendices)

On successful completion you will be able to:

- Develop a broad understanding and knowledge of the nature of environmental health issues at different geographic scales - local, regional, national and global.
- Develop critical, analytical and integrative thinking skills by class discussions and reading key environmental health reports, journals, and internet resources.
- Prepare and present a detailed research investigation on a specific environmental health topic utilising advanced science communication skills and considered opinion highlighting the nature of the issue, population affected, key findings and recommendations.
- Gain the confidence and capacity to contribute to public discourse on a range of environmental health issues.
- Appreciate the interdisciplinary nature of environmental health professionals skills and knowledge in the context of other units of study.

## **Delivery and Resources**

### **Lectures:**

The weekly 3 hour lecture block is the main mode of face-to-face delivery in this unit. The format is a mix of formal presentations, class discussions and student exercises. Active student participation and engagement is expected by all students.

The lectures are recorded using the Echo 360 Active Learning Platform and can be accessed via the ENV5819 iLearn page.

Three (3) online modules have been developed for completion in Weeks 3, 6 and 10. There are assessments task linked to each online module - Assessments 1, 2 and 4.

In Week 12, all students are required to be available and present their research project to the class - this is Assessment task 5.

### **iLearn:**

ENV5819 makes extensive use of iLearn as the primary portal for information and class communication. All lecture materials, supplementary resources, background readings, key reports and articles and websites are provided via the iLearn page. iLearn "Announcements"

and the "Discussion Forums" are utilised and all students are required to login regularly (at least once per week). It is expected that all students will actively engage and participate in the online and class discussions.

Given the contemporary nature of this subject, regular use is made of the **Environmental Health News** service: <http://www.environmentalhealthnews.org/> and all students are encouraged to subscribe to the daily EH News e-letter to assist with learning.

**Key websites include:**

- NSW Environment Protection Agency (EPA) <http://www.epa.nsw.gov.au/>
- World Health Organisation (WHO) Public Health and Environment <http://www.who.int/phe/en/>
- US Centers for Disease Control and Prevention (CDC) National Center for Environmental Health <https://www.cdc.gov/nceh/>
- Co-operative Research Centre (CRC) for Contamination Assessment and Remediation of the Environment (CARE) <http://www.crccare.com/>
- Australian Indigenous Health InfoNet <http://www.healthinfonet.ecu.edu.au/>
- Environmental Health Australia knowledge centre <https://www.eh.org.au/resources/knowledge-centre>
- NSW Ministry of Health Environmental Health Branch <http://www.health.nsw.gov.au/environment/Pages/default.aspx>
- WHO International Agency for Research on Cancer (IARC) <https://www.iarc.fr/>

## Unit Schedule

Week	Date	Topic *	Comments/Notes
1	3 August 2017	Introduction to the unit	Unit overview
2	10 August 2017	Risk assessment and management; Health Impact Assessments; Case studies.	Tools, methods and data; communication
3	17 August 2017	<b>ONLINE MODULE 1:</b> Healthy urban planning and houses	Design, materials, master planning
4	24 August 2017	Hazardous materials: the good, the bad and the ugly	Types; exposure; occupational hazards; regulation; controversies
5	31 August 2017	Air quality	Indoor, outdoor, aeroallergens
6	7 September 2017	<b>ONLINE MODULE 2:</b> Food safety	Different contexts; types of foods; standards and regulations



7	14 September 2017	Weather, climate and environmental health	Climate change 101; key issues; controversies; vulnerable populations and environments
	16 September - 1 October 2017	<b>UNIVERSITY RECESS</b>	
8	5 October 2017	Certain infectious and parasitic diseases	Epidemics and pandemics; ICD classifications and data
9	12 October 2017	Water and sanitation in developing countries	International development challenges and obstacles
10	19 October 2017	<b>ONLINE MODULE 3:</b> Environmental justice	Indigenous communities, socio-economic disadvantage and location.
11	26 October 2017	Conflict, crises and environmental health	War, natural hazards, case studies
12	2 November 2017	Student research project presentations	Public speaking and science communication skills
13	9 November 2017	Final: Subject review	Discussion; AV showcase; student feedback
		* These are subject to change. Advanced notice will be provided.	

## 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](http://mq.edu.au/policy/docs/academic_honesty/policy.html)

Assessment Policy [http://mq.edu.au/policy/docs/assessment/policy\\_2016.html](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](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](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/](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](#).

## 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](http://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](http://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/](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

### 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 broad understanding and knowledge of the nature of environmental health issues at different geographic scales - local, regional, national and global.
- Gain the confidence and capacity to contribute to public discourse on a range of environmental health issues.
- Appreciate the interdisciplinary nature of environmental health professionals skills and knowledge in the context of other units of study.

## Assessment tasks

- Online module 1 review
- Online module 2 review
- Research project proposal
- Online module 3 review
- Research project presentation
- Research project report

## 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

- Develop a broad understanding and knowledge of the nature of environmental health issues at different geographic scales - local, regional, national and global.
- Develop critical, analytical and integrative thinking skills by class discussions and reading key environmental health reports, journals, and internet resources.
- Prepare and present a detailed research investigation on a specific environmental health topic utilising advanced science communication skills and considered opinion highlighting the nature of the issue, population affected, key findings and recommendations.
- Gain the confidence and capacity to contribute to public discourse on a range of environmental health issues.
- Appreciate the interdisciplinary nature of environmental health professionals skills and knowledge in the context of other units of study.

## Assessment tasks

- Online module 1 review
- Online module 2 review
- Research project proposal
- Online module 3 review
- Research project presentation
- Research project report

## 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

- Develop a broad understanding and knowledge of the nature of environmental health issues at different geographic scales - local, regional, national and global.
- Develop critical, analytical and integrative thinking skills by class discussions and reading key environmental health reports, journals, and internet resources.
- Gain the confidence and capacity to contribute to public discourse on a range of environmental health issues.

## Assessment tasks

- Online module 1 review
- Online module 2 review
- Research project proposal
- Online module 3 review
- Research project report

## 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

- Develop a broad understanding and knowledge of the nature of environmental health issues at different geographic scales - local, regional, national and global.
- Develop critical, analytical and integrative thinking skills by class discussions and reading key environmental health reports, journals, and internet resources.
- Prepare and present a detailed research investigation on a specific environmental health topic utilising advanced science communication skills and considered opinion highlighting the nature of the issue, population affected, key findings and recommendations.

## Assessment tasks

- Online module 1 review
- Online module 2 review
- Research project proposal
- Online module 3 review
- Research project presentation
- Research project report

## 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 outcomes

- Develop critical, analytical and integrative thinking skills by class discussions and reading key environmental health reports, journals, and internet resources.
- Prepare and present a detailed research investigation on a specific environmental health topic utilising advanced science communication skills and considered opinion highlighting the nature of the issue, population affected, key findings and recommendations.
- Gain the confidence and capacity to contribute to public discourse on a range of environmental health issues.

## Assessment tasks

- Research project proposal

- Research project presentation
- Research project report

## 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 outcomes

- Develop a broad understanding and knowledge of the nature of environmental health issues at different geographic scales - local, regional, national and global.
- Develop critical, analytical and integrative thinking skills by class discussions and reading key environmental health reports, journals, and internet resources.
- Gain the confidence and capacity to contribute to public discourse on a range of environmental health issues.
- Appreciate the interdisciplinary nature of environmental health professionals skills and knowledge in the context of other units of study.

### Assessment tasks

- Research project proposal
- Online module 3 review
- Research project report

## Changes from Previous Offering

The unit has been redesigned following a Department review at the end of 2015.

The use of guest lecturers including Macquarie University academics, government and industry specialists is no longer a key aspect of this unit.

Three (3) new online modules have been developed following student feedback from previous offerings of this unit.