

GSE 819

Environmental Health

S2 Evening 2015

Dept of Environmental Sciences

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General Information

Unit convenor and teaching staff

Unit Convenor

Frank Siciliano

frank.siciliano@mq.edu.au

Contact via frank.siciliano@mg.edu.au

Level 2, Australian Hearing Hub building

Monday 2pm-5pm

Credit points

4

Prerequisites

GSE803

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. Note: permission to complete the unit without completion of GSE803 as a prerequisite will only be granted if the student has completed a science-based degree.

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:

Development of a broad understanding of the nature of environmental health topics at different geographic scales - local, regional, national and global

Development of critical, analytical and integrative thinking via reading, discussion and

review of key environmental health reports, journals and policy documents

Experience in preparing and presenting research project, and in effective communication of the nature of the issue, key findings, considered opinion and recommendations

Capacity to undertake a detailed research investigation on a specific environmental health topic, and to clearly and concisely communicate findings in different formats

Awareness of the number and variety of professional fields and other units of study that relate to environmental health

Ability to contribute confidently to public discourse on environmental health issues

Assessment Tasks

| Name | Weighting | Due |
|------------------------------|-----------|-------------------|
| 1. Local scale EH case study | 15% | 17 August 2015 |
| 2. Aboriginal EH | 15% | 7 September 2015 |
| 3. Research project proposal | 15% | 25 September 2015 |
| 4: Class presentation | 15% | 26 October 2015 |
| 5: Major research project | 40% | 6 November 2015 |

1. Local scale EH case study

Due: 17 August 2015 Weighting: 15%

(500 words maximum)

You are required to clearly and concisely summarise a relevant local environmental health issue from one of the following websites:

http://www.environmentalhealthnews.org/

http://www.abc.net.au/news/topic/environmental-health

- Select a local environmental health issue of interest to you.
- Add an iLearn post summarising the topic and key issues (500 words).
- Provide the weblink to the news story
- Include at least two (2) additional references related to the story e.g. a report, video, another news item, etc
- Be prepared to discuss the topic with the class on Monday 17th August 2015.

In your summary, consider:

- · the nature of the environmental health issue
- human-environmental interaction
- the approximate number of people affected
- an indication of the known and/or potential health implications for the local population affected
- the role of government agencies and others involved in management and regulation

Assessment of the summary review will be based on:

- the level of understanding of the nature of the local scale of the environmental health issue
- demonstrated understanding of the population affected and human health implications
- clarity of written expression in the iLearn post
- · contribution to the class discussion during the lecture on 17th August

On successful completion you will be able to:

- Development of a broad understanding of the nature of environmental health topics at different geographic scales - local, regional, national and global
- Development of critical, analytical and integrative thinking via reading, discussion and review of key environmental health reports, journals and policy documents
- Awareness of the number and variety of professional fields and other units of study that relate to environmental health
- Ability to contribute confidently to public discourse on environmental health issues

2. Aboriginal EH

Due: 7 September 2015

Weighting: 15%

As background to the guest presentation on Aboriginal environmental health, you are required to *undertake the following tasks before coming to class*:

1. Watch the documentary film "Kanyini" (56 minutes)

http://www.youtube.com/watch?v=fAOcfkcGDKA

- 2. Write a brief iLearn post (**150 words maximum**) that *reflects your understanding* of the key themes and issues of the film.
- 3. Read the NSW Department of Health (2007) Issues paper "NSW ABORIGINAL COMMUNITY WATER AND SEWERAGE WORKING GROUP".
- 4. As a reply to your own movie iLearn post, provide some brief notes (**350 words maximum**)

that answer the following questions:

a. Given Indigenous peoples spiritual and cultural attachment to land, would the establishment of a law such as the Land Rights Act and the return of land to Aboriginal people be likely to lead to

an improvement in the health and well-being of those communities? If so, why? If not, why not?

b. How did such an Act of reconciliation as the handing of land back to Aboriginal people,

actually impact on Public Health in those communities?

c. What were some of the difficulties and issues leading to poor water and sewerage services in

communities?

d. Who should be responsible for these services? Who is responsible for these services where

you live?

Assessment of these tasks will consider:

level of understanding of key issues and themes related to historic and current health

and welfare situation facing many Aboriginal people in Australia

· demonstration of having viewed the documentary film and read the Issues paper

· clarity and quality of personal reflections and answers

· contribution to the class discussion

On successful completion you will be able to:

• Development of a broad understanding of the nature of environmental health topics at

different geographic scales - local, regional, national and global

Development of critical, analytical and integrative thinking via reading, discussion and

review of key environmental health reports, journals and policy documents

· Awareness of the number and variety of professional fields and other units of study that

relate to environmental health

· Ability to contribute confidently to public discourse on environmental health issues

3. Research project proposal

Due: 25 September 2015

Weighting: 15%

(500 words maximum plus references)

This is the first of three related assessment tasks for GSE819.

With the major research project in mind, the proposal requires you to **submit a brief outline of the selected topic**, **accompanied by at least five references**. The proposal should be used to develop a broad familiarity with the selected research topic, which will be explored in greater

depth in the final report.

The study should relate to a contemporary **environmental health** topic at an appropriate geographic scale (e.g. global, national, regional, state, urban, rural or local).

The use of at least one case study is required to highlight the research topic.

You will undertake an original research investigation into a environmental health topic drawn from the list below:

- environmental health risk assessment
- · environmental health law, policy and enforcement
- food safety
- workplace or industrial health hazards
- environmental health in developing countries
- · climate change and environmental health
- any of the GSE819 lecture topics (refer to the GSE819 lecture schedule)

NB: Proposals outside of this list are welcome but must be discussed with the unit convenor.

Each proposal must include the following:

- a clear statement of the topic being researched
- · a description of the relevant built and/or natural environment
- · a description of the health impact on the human population affected
- relevance of the case study or studies
- a minimum of five (5) references directly related to the subject

Assessment of the proposal will consider:

- demonstration of an appropriate level of initial research into selected project topic
- quality of description of the proposed research agenda
- · clarity of written expression
- · quality and relevance of references
- inclusion of relevant additional references and material
- correct academic referencing style (e.g. Harvard)

On successful completion you will be able to:

- Development of a broad understanding of the nature of environmental health topics at different geographic scales - local, regional, national and global
- Development of critical, analytical and integrative thinking via reading, discussion and review of key environmental health reports, journals and policy documents
- Experience in preparing and presenting research project, and in effective communication of the nature of the issue, key findings, considered opinion and recommendations

- Capacity to undertake a detailed research investigation on a specific environmental health topic, and to clearly and concisely communicate findings in different formats
- · Ability to contribute confidently to public discourse on environmental health issues

4: Class presentation

Due: 26 October 2015

Weighting: 15%

Research Project presentation (in class)

15% = 10% hard copy/file "poster" + 5% oral presentation

The poster and oral presentations will provide a summary of the chosen topic, explain key ideas and issues, outline research to date (secondary reading, data collection etc).

The assignment will provide opportunity to:

- develop skills in concise communication of a scientific subject to a non-specialist audience
- · highlight key issues and relevant case studies related to the topic
- · stimulate class interest and discussion
- · demonstrate progress of research report

You are required to:

- submit a poster of 2 x A4 pages, or 1 x A3 page that clearly and concisely summarises the major research project topic
- brief oral presentation to the class (strictly 10 minutes maximum) based on this
 poster summary

Powerpoint or Adobe Acrobat (PDF) can be used to support the oral presentation but are **limited to 2 slides**.

If you are using Powerpoint or PDF, then **only static slides are permitted. No slide** transitions, animations or 'movement' of any description are allowed.

For some tips and tricks have a look at the "3 minute thesis" competition guidelines.

The style and format of the presentation should follow that of a typical conference poster that utilises graphics and key summary points only. For ideas on and images of conference poster see: http://people.eku.edu/ritchisong/posterpres.html

NB: EVERYONE MUST SUBMIT a hard copy of the poster, and a copy of the PowerPoint or PDF file at the start of class on 26th October 2015.

Assessment will consider:

level of understanding of main issues associated with topic

- · demonstration of satisfactory progress of research
- · clarity and quality of oral presentation
- · clarity and quality of poster

On successful completion you will be able to:

- Development of a broad understanding of the nature of environmental health topics at different geographic scales - local, regional, national and global
- Development of critical, analytical and integrative thinking via reading, discussion and review of key environmental health reports, journals and policy documents
- Experience in preparing and presenting research project, and in effective communication of the nature of the issue, key findings, considered opinion and recommendations
- · Ability to contribute confidently to public discourse on environmental health issues

5: Major research project

Due: 6 November 2015

Weighting: 40%

(3,000 words maximum) Word limit includes all text but **does not include** reference list, tables, figures or appendices.

Report requirements

The project builds on Assignment 3 and should present a thorough investigation into the selected environmental health topic.

While field research is not expected, some students may find observational research a useful approach.

The report should include the following sections and components:

- Title page
- Executive Summary (half to one page maximum)
- · Table of Contents
- Introduction
- · Detailed analysis of the issue
- · Case study or studies
- Conclusion
- References (correct style required e.g. Harvard)
- Appendices (where appropriate)
- Line spacing should be 1.5

· Include page numbers

Tables, maps, diagrams, photos, etc. can be used in the report where appropriate.

They can inserted either in text or compiled in appendices.

Ensure all graphics have a caption and are correctly referenced.

Assessment of the final report will consider:

- · depth of reading and research
- demonstrated understanding of the extent and importance of the environmental health issue
- · construction of arguments and flow of text
- · clarity and concision of written expression
- · quality and range of presentation and layout
- · appropriate use of illustrative materials such as tables, maps, graphs and photos
- a concise Executive Summary
- complete and correct referencing style (e.g. Harvard)

On successful completion you will be able to:

- Development of a broad understanding of the nature of environmental health topics at different geographic scales - local, regional, national and global
- Development of critical, analytical and integrative thinking via reading, discussion and review of key environmental health reports, journals and policy documents
- Experience in preparing and presenting research project, and in effective communication of the nature of the issue, key findings, considered opinion and recommendations
- Capacity to undertake a detailed research investigation on a specific environmental health topic, and to clearly and concisely communicate findings in different formats
- Awareness of the number and variety of professional fields and other units of study that relate to environmental health
- · Ability to contribute confidently to public discourse on environmental health issues

Delivery and Resources

Technology

The GSE819 iLearn site:

· unit lecture schedule

- "Announcements" and "Discussions" forums
- · resource material and references
- · lecture slides and related materials
- outline of assessment tasks

Students are required to log on to iLearn regularly (at least once per week) to check discussions and announcements.

It is expected that all students will actively contribute to the online "Discussion" forums.

- the library's e-journal collection https://www.library.mq.edu.au/research/journal-finder.php
- student IT help http://informatics.mq.edu.au/help/

Key websites include:

- Environmental Health News http://www.environmentalhealthnews.org/
- Centres for Disease Control and Prevention. Environmental health http://www.cdc.gov/environmental/
- CRC for Contamination Assessment and Remediation of the Environment (CRC CARE)
 http://www.crccare.com/publications/fact_sheets/index.html
- Cochrane Library http://www.cochrane.org/
- Environmental Health Australia Gateway http://www.eh.org.au/
- enHealth http://enhealth.nphp.gov.au/
- NSW Dept of Environment & Climate Change <a href="http://www.environment.nsw.gov.au/environment.nsw.g
- NSW Food Authority http://www.foodauthority.nsw.gov.au/
- Victorian Dept of Health Environmental health http://www.health.vic.gov.au/environment/
 t/
- UNSW HIA Connect http://www.hiaconnect.edu.au/
- US Centers for Disease Control & Prevention (CDC) National Centre for Environmental Health http://www.cdc.gov/nceh/
- US Environmental Protection Agency http://www.epa.gov/
- World Health Organisation (WHO) Environmental health topics http://www.who.int/topic
 s/environmental health/en/
- The World Wide Web Virtual Library: Public Health http://www.sphcm.med.unsw.edu.au/ sphcmweb.nsf/page/wwwvlph
- Australian Indigenous Environmental Health practitioners web resource: http://www.healt

hinfonet.ecu.edu.au/health-infrastructure/iehp

Other websites are provided on the GSE819 iLearn site.

Lectures

Classes are held on Monday evenings from 6:00pm-9:00pm in Building E8A Room 386

The lectures are not recorded.

Attendance is compulsory.

You must attend a minimum of 80% of the lectures (i.e. 10 of the 12 weeks) during semester. There is a Public Holiday on Monday 5th October (week 9) and therefore no class is scheduled on this day.

However, everyone must be available to present their research project on Monday 26 October (week 12). This is Assessment task 4.

If you cannot make any class, then please email me: frank.siciliano@mq.edu.au

Unit Schedule

GSE819 is delivered by guest presenters for 6 weeks out of 12. A number of lectures are delivered by the unit convener. The class on Monday 26 October (week 12) is dedicated to student research project presentations.

There is a <u>Public Holiday on Monday 5th October</u> (week 9) and therefore <u>no class</u> is scheduled on this day.

Guest lectures are subject to change due to a range of circumstances. Notification of any changes will be made via the GSE819 iLearn "Announcements"

| Week | <u>Date</u> | <u>Topic</u> | <u>Presenter</u> |
|------|-------------|---|---|
| 1 | 27 July | Introduction | Frank Siciliano MQ Dept of Environmental Sciences |
| 2 | 3 August | Environmental impact of Infectious diseases | Dr Kevin McCracken MQ Dept of Geography and Planning |

| 3 | 10 August | Tobacco: production, consumption and disposal | Dr Ross MacKenzie MQ Dept of Psychology |
|---|-----------------|--|---|
| 4 | 17 August | Local environmental health case studies | Frank Siciliano |
| 5 | 24 August | Hazardous waste: the good, the bad and the ugly | Frank Siciliano |
| 6 | 31 August | Health Impact Assessment | Dr Ben Harris-Roxas Senior Consultant, ZEST Health Strategies Pty Ltd |
| 7 | 7 September | Aboriginal environmental health | Mr Jeff Standen Manager Aboriginal EH unit NSW Ministry of Health |
| 12 - 27 September university Session 2 recess | | | |
| 8 | 28 September | Climate and health | Frank Siciliano |
| 9 | 5 October | No class: PUBLIC HOLIDAY | |
| 10 | 12 October | Land contamination and health | Professor Mark Taylor MQ Dept of Environmental Sciences |
| 11 | 19 October | Water and Sanitation – international development perspectives and observations | Mr Peter Dwan WASH Consultant |
| 12 | 26 October | Student research project presentations | |

| 13 | 2 November | Unit summary | Frank Siciliano |
|----|---------------|---------------------------------|-----------------|
| | November | AV presentations and discussion | |
| | | | |

Policies and Procedures

Macquarie University policies and procedures are accessible from <u>Policy Central</u>. 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 <u>Learning and Teaching Category</u> of Policy Central.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mg.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 <a href="extraction-color: blue} eStudent. For more information visit <a href="extraction-color: blue} ask.m <a href="extraction-color: blue} e.c..

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 <u>Disability Service</u> 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/hel
p/.

When using the University's IT, you must adhere to the <u>Acceptable Use Policy</u>. 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

- Development of a broad understanding of the nature of environmental health topics at different geographic scales - local, regional, national and global
- Experience in preparing and presenting research project, and in effective communication of the nature of the issue, key findings, considered opinion and recommendations
- Ability to contribute confidently to public discourse on environmental health issues

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

- Development of a broad understanding of the nature of environmental health topics at different geographic scales - local, regional, national and global
- Development of critical, analytical and integrative thinking via reading, discussion and review of key environmental health reports, journals and policy documents
- Experience in preparing and presenting research project, and in effective communication of the nature of the issue, key findings, considered opinion and recommendations
- Capacity to undertake a detailed research investigation on a specific environmental health topic, and to clearly and concisely communicate findings in different formats
- Awareness of the number and variety of professional fields and other units of study that relate to environmental health
- · Ability to contribute confidently to public discourse on environmental health issues

Assessment tasks

- 1. Local scale EH case study
- · 2. Aboriginal EH
- · 3. Research project proposal
- 4: Class presentation
- 5: Major research project

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

- Development of a broad understanding of the nature of environmental health topics at different geographic scales - local, regional, national and global
- Development of critical, analytical and integrative thinking via reading, discussion and review of key environmental health reports, journals and policy documents
- Capacity to undertake a detailed research investigation on a specific environmental

health topic, and to clearly and concisely communicate findings in different formats

- Awareness of the number and variety of professional fields and other units of study that relate to environmental health
- · Ability to contribute confidently to public discourse on environmental health issues

Assessment tasks

- 1. Local scale EH case study
- 2. Aboriginal EH
- 3. Research project proposal
- 5: Major research project

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

- Development of a broad understanding of the nature of environmental health topics at different geographic scales - local, regional, national and global
- Development of critical, analytical and integrative thinking via reading, discussion and review of key environmental health reports, journals and policy documents
- Experience in preparing and presenting research project, and in effective communication of the nature of the issue, key findings, considered opinion and recommendations
- Capacity to undertake a detailed research investigation on a specific environmental health topic, and to clearly and concisely communicate findings in different formats
- · Ability to contribute confidently to public discourse on environmental health issues

Assessment tasks

- · 2. Aboriginal EH
- 5: Major research project

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

- Development of a broad understanding of the nature of environmental health topics at different geographic scales - local, regional, national and global
- Development of critical, analytical and integrative thinking via reading, discussion and review of key environmental health reports, journals and policy documents
- Experience in preparing and presenting research project, and in effective communication of the nature of the issue, key findings, considered opinion and recommendations
- Capacity to undertake a detailed research investigation on a specific environmental health topic, and to clearly and concisely communicate findings in different formats
- · Ability to contribute confidently to public discourse on environmental health issues

Assessment tasks

- 1. Local scale EH case study
- · 3. Research project proposal
- · 4: Class presentation
- 5: Major research project

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

- Development of a broad understanding of the nature of environmental health topics at different geographic scales - local, regional, national and global
- Development of critical, analytical and integrative thinking via reading, discussion and review of key environmental health reports, journals and policy documents
- · Ability to contribute confidently to public discourse on environmental health issues

Assessment task

· 2. Aboriginal EH

Changes from Previous Offering

There are no changes to GSE819.