



# SOC 254

## Science, Society and Environment

S2 Day 2014

*Sociology*

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## General Information

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Credit points

3

Prerequisites

12cp

Corequisites

Co-badged status

Unit description

This unit examines the relationship between science and society through environmental sustainability. We focus on two big questions: how can we understand science and scientific developments as social processes and institutions; and how can we understand the implications of scientific advance and insights on society in light of environmental issues? We examine how science developed through Modernity, how scientific knowledge is formed and how it's used in the policy process. We look at the continuum of values from conventional instrumental to deep ecological values and investigate their uses in environmental policy. The first question is addressed through an analysis of what we mean by scientific knowledge, how this might differ from other knowledge systems and how science is actually practiced and new insights developed. The second question we address through debates on climate change and sustainability. We ask how and why scientists have raised questions about environmental sustainability. What is the basis of these claims and of criticisms of science? How have scientists engaged in broader social and political debates to advance their environmental insights? How have scientists influenced our societies to become more sustainable, and why have they not been more successful?

## 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:

The unit's objectives are to enable students in the following areas and capacities: to explore and explain the relationships between society, science and technology, to be able to situate 'science' in relation to the social production of environmental knowledge, to learn to appreciate historically changing conceptions of science and their implications for environmental understandings and sustainability, to come to identify social, scientific, economic, political and ecological interdependencies, to understand the way scientific knowledge is produced and its place in public policy contestation, to learn to appreciate complexity and uncertainty in environmental sustainability decisions, and to understand the place of values in the production of knowledge and the way the environment is conceived, to appreciate the variety of formal and informal inputs into environmental decision making processes in relation to the case of climate change policy, and to learn to appreciate the value of indigenous knowledge systems in re-thinking western notions of sustainability.

The following graduate capabilities will be developed through the unit: working knowledge of the main themes in scientific knowledge production, environmental policy, climate change and its politics, and sustainability principles, critical and independent research and thinking, competent analysis of arguments: description of content, finding evidence, synthesizing discrete pieces of information, making competent and coherent logical claims, effective oral and written communication, and engagement with local and global environmental issues and sustainability.

## Assessment Tasks

Name	Weighting	Due
<u>Analysis of environmental issue</u>	25%	Week 6
<u>Weekly Quiz</u>	20%	Ongoing
<u>Report</u>	40%	Week 11
<u>Participation</u>	15%	Ongoing

### Analysis of environmental issue

Due: **Week 6**

Weighting: **25%**

**Analysis of environmental issue (25%)** Longitudinal analysis of an environmental issue (500 words); due Fri, week 6.

Topic: Select one environmental issue that has been the subject of ongoing public policy debate and assess the role of science in:

1. identification and legitimation of the issue
2. public debate
3. government policy responses

Assessment criteria:

- the quality of your evidence base (relevance and breadth of references)
- clarity of analysis of the role of science compared to other factors affecting policy response.

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logical claims, effective oral and written communication, and engagement with local and global environmental issues and sustainability.

## Weekly Quiz

Due: **Ongoing**

Weighting: **20%**

**Weekly quiz (20%)** Weekly online quizzes will appear on iLearn from Week 2 to Week 12.

These will incorporate weekly lecture topics and material from the weekly reading. Each quiz will be worth 2 points, adding up to 20% of your overall mark over 10 weeks. These will have to be completed within a set time period following the lectures.

On successful completion you will be able to:

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## Report

Due: **Week 11**

Weighting: **40%**

**Report (40%)** An investigation into the use of science by one environmental advocacy body in

relation to environmental issues (2000 words); due Fri, week 11.

Topic: Choose one organisation that has made a significant contribution to debate on the issue of climate change and critically assess the connection between its values and interests, its advocacy positions and its use of science. To what extent do you support its views?

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## Participation

Due: **Ongoing**

Weighting: **15%**

**Participation in lectures and tutorials (15%)** lecture and tutorial attendance, evidence of reading and contribution to discussion (5% attendance of tutorials, 5% attendance at lectures, 5% participation)

On successful completion you will be able to:

- The unit's objectives are to enable students in the following areas and capacities: to

explore and explain the relationships between society, science and technology, to be able to situate 'science' in relation to the social production of environmental knowledge, to learn to appreciate historically changing conceptions of science and their implications for environmental understandings and sustainability, to come to identify social, scientific, economic, political and ecological interdependencies, to understand the way scientific knowledge is produced and its place in public policy contestation, to learn to appreciate complexity and uncertainty in environmental sustainability decisions, and to understand the place of values in the production of knowledge and the way the environment is conceived, to appreciate the variety of formal and informal inputs into environmental decision making processes in relation to the case of climate change policy, and to learn to appreciate the value of indigenous knowledge systems in re-thinking western notions of sustainability.

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## **Delivery and Resources**

### **Main resources in this unit**

iLearn will be the central organising space for the unit, apart from live face to face interactions, which are also essential. Students will find all unit materials there, including readings, resources, guides and assessment. Turnitin will be used for electronic submission of written components, which will be found on iLearn also. No hard copies, no exams in this unit.

### **Attendance**

Attendance of lectures and tutorials in this unit is mandatory. Without the face to face content no internal student can accomplish this unit. Students will be assessed on their presence in lectures and tutorials, and their preparation for classes (including completion of reading materials, engagement in classroom discussion, ability to answer questions and participation in teamwork exercises). There is no exam in this unit so students' face to face participation is the backbone of learning and assessment.

Students are required to attend all classes and submit all required assessment tasks, otherwise the Executive Dean of the Faculty or delegated authority has the power to withhold completion of the unit. This includes tutorial participation where 80% of attendance is required at the minimum (minus medical exemption)

## 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.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](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](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/](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](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://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

### 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:

#### Assessment tasks

- Weekly Quiz
- Participation

### 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:

#### Assessment tasks

- Weekly Quiz
- Report
- Participation

### 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**

- The unit's objectives are to enable students in the following areas and capacities: to explore and explain the relationships between society, science and technology, to be able to situate 'science' in relation to the social production of environmental knowledge, to learn to appreciate historically changing conceptions of science and their implications for environmental understandings and sustainability, to come to identify social, scientific, economic, political and ecological interdependencies, to understand the way scientific knowledge is produced and its place in public policy contestation, to learn to appreciate complexity and uncertainty in environmental sustainability decisions, and to understand the place of values in the production of knowledge and the way the environment is conceived, to appreciate the variety of formal and informal inputs into environmental decision making processes in relation to the case of climate change policy, and to learn to appreciate the value of indigenous knowledge systems in re-thinking western notions of sustainability.
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## **Assessment tasks**

- Analysis of environmental issue
- Report

## **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

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## Assessment tasks

- Weekly Quiz
- Report

## 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

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## **Assessment task**

- Report

## **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**

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## **Assessment tasks**

- Analysis of environmental issue
- Report
- Participation

## **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 outcomes**

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## **Assessment tasks**

- Analysis of environmental issue
- Report

## **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**

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- Analysis of environmental issue

- Report
- Participation