BIOL876

Climate Change Impacts

S2 Day 2018

Dept of Biological Sciences

Contents

General Information

Unit convenor and teaching staff
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Credit points
4

Prerequisites
Admission to MConsBiol or GradDipConsBiol or GradCertConsBiol or MEnv or MEnvPlan or GradDipEnv or MMarScMgt or MSusDev or GradDipSusDev or MSc or MPlan or MSocEntre or GradCertSusDev or GradDipSIA

Corequisites

Co-badged status

Unit description
This unit focuses on the impacts of climate change, both those already observed and projections for the twenty-first century, on components of the Earth System including the physical environment, the marine and terrestrial biosphere, biodiversity, ecosystems goods and services, and human health and well-being.

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:

Analyse, critique and synthesise knowledge about the impacts of climate change on a broad range of sectors, and drawing connections across fields of knowledge
Utilise research skills to identify impacts of climate change on a given sector
Demonstrate creative problem solving skills to develop adaptation strategies that increase resilience to climate change
Identify areas of scientific uncertainty and complexity with regards to different sectors, and account for this in adaptation strategies
Identify barriers and challenges to implementing adaptation responses
Transfer knowledge and skills regarding adaptation planning to industries/sectors beyond your personal experience

General Assessment Information

There are two hurdle assessments in this unit:

Quizzes: Students must attempt each of the quizzes to pass this unit.

AND

Discussion and Participation: Students must attend at least five of the seven student-led discussions to pass this unit.

Assessment Tasks

Name	Weighting	Hurdle	Due
Quiz	21%	Yes	Week 5; Week 9; Week 13
Discussion & Participation	15%	Yes	On-going
Impacts & adaptation	24%	No	10/09/2018, Week 7
Adaptation Plan	40%	No	29/10/2018, Week 12

Quiz

Due: **Week 5; Week 9; Week 13**
Weighting: **21%**
This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)

Throughout the semester you will undertake three quizzes (worth 7% each), based on lectures, tutorials and recommended readings. The quizzes in Week 5 and 9 will be online, while the final quiz will be in class. As these quizzes are a hurdle assessment, each quiz must be attempted in order to pass the unit.

On successful completion you will be able to:

- Analyse, critique and synthesise knowledge about the impacts of climate change on a broad range of sectors, and drawing connections across fields of knowledge
- Identify areas of scientific uncertainty and complexity with regards to different sectors, and account for this in adaptation strategies
- Identify barriers and challenges to implementing adaptation responses
- Transfer knowledge and skills regarding adaptation planning to industries/sectors beyond your personal experience

Discussion & Participation

Due: **On-going**
Weighting: **15%**
This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)

The ability to identify scientifically sound information on climate change and to communicate this to others are prerequisites for advocacy, action and environmental literacy. At some point in the semester, each student will be expected to lead a discussion on that week's topic (worth 10%). All students are expected to actively participate in each discussion, with 5% of your grade being determined by your participation. As this assessment is a hurdle, students must attend at least five of the seven student-led discussions to pass this unit.

On successful completion you will be able to:

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Impacts & adaptation

Due: **10/09/2018, Week 7**
Weighting: **24%**

You will explore an Australian system that has already been impacted by climate change, develop a report outlining these impacts and likely adaptation strategies (~1200 words), and an

A3-page infographic summarising your report for a non-science audience

On successful completion you will be able to:

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Adaptation Plan

Due: **29/10/2018, Week 12**
Weighting: **40%**

Adaptation assessments are useful tools to identify actions that can be undertaken now or in the near future to anticipate the impacts of climate change and reduce vulnerability. For this assessment, you will select an area of interest and follow one of several formats to develop an Adaptation Plan. The assessment will be approximately 3000 words in length.

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Delivery and Resources

Required and recommended texts and/or materials

There is no recommended text for this unit. However, readings will be provided for each lecture.

Unit web page

PowerPoint slides, lecture recordings, unit readings, copies of all unit hand-outs and helpful resources for completion of assessments will be available through iLearn. Consequently, it is strongly recommended that you interact with the BIOL876 online unit regularly. To access the online unit, go to https://iLearn.mq.edu.au/login/MQ/ and type in your Macquarie OneID Username and password.

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). 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). 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).

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 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) provides academic writing resources and study strategies to improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit http://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

- Demonstrate creative problem solving skills to develop adaptation strategies that increase resilience to climate change
- Identify barriers and challenges to implementing adaptation responses

Assessment tasks

- Discussion & Participation
- Adaptation Plan

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

- Analyse, critique and synthesise knowledge about the impacts of climate change on a broad range of sectors, and drawing connections across fields of knowledge
- Utilise research skills to identify impacts of climate change on a given sector
- Identify areas of scientific uncertainty and complexity with regards to different sectors, and account for this in adaptation strategies
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- Transfer knowledge and skills regarding adaptation planning to industries/sectors beyond your personal experience

Assessment tasks

- Quiz
- Discussion & Participation
- Impacts & adaptation
- Adaptation Plan

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

- Analyse, critique and synthesise knowledge about the impacts of climate change on a broad range of sectors, and drawing connections across fields of knowledge
- Utilise research skills to identify impacts of climate change on a given sector

- Demonstrate creative problem solving skills to develop adaptation strategies that increase resilience to climate change
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Assessment tasks

- Quiz
- Discussion & Participation
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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

- Analyse, critique and synthesise knowledge about the impacts of climate change on a broad range of sectors, and drawing connections across fields of knowledge
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Assessment tasks

- Quiz
- Discussion & Participation
- Impacts & adaptation
- Adaptation Plan

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

- Analyse, critique and synthesise knowledge about the impacts of climate change on a broad range of sectors, and drawing connections across fields of knowledge
- Demonstrate creative problem solving skills to develop adaptation strategies that increase resilience to climate change
- Identify areas of scientific uncertainty and complexity with regards to different sectors, and account for this in adaptation strategies
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Assessment tasks

- Discussion & Participation
- Impacts & adaptation
- Adaptation Plan

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

- Analyse, critique and synthesise knowledge about the impacts of climate change on a broad range of sectors, and drawing connections across fields of knowledge
- Identify barriers and challenges to implementing adaptation responses

Assessment tasks

- Quiz

- Discussion & Participation
- Impacts & adaptation
- Adaptation Plan

Changes from Previous Offering

Three quizzes will be held throughout the semester, in place of weekly quizzes. These will remain opened book tests.