UNSW Course Outline

GENS0401 Introduction to Climate Change - 2024

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General Course Information

Course Code : GENS0401
Year : 2024
Term : Term 2
Teaching Period : T2
Is a multi-term course? : No
Faculty : Faculty of Science
Academic Unit : School of Biological, Earth and Environmental Sciences
Delivery Mode : Online
Delivery Format : Standard
Delivery Location : Kensington
Campus : Sydney
Study Level : Undergraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

Why do people disagree so much about climate change? How can they tell fact from fiction in the debate? How do they know climate change is happening and what are the causes? Climate change is now an issue confronting many disciplines, from architecture, engineering and

business through to environmental science, public health, law and economics. This online course will draw on a broad collection of UNSW experts to cover the basics of climate change science, as well as a selection of key related areas from psychology, law, politics, economics, energy supply, ethics and health. A range of perspectives on the nature of these challenges will be treated with a critical analysis approach, as well as hands-on engagement with the peer review process, highlighting its role in the scientific process.

This course is an online-only offering and therefore there are no physical attendance requirements. There are no pre-requisites and so this course suits students at any stage of their degree. Lectures are asynchronous. However, the course requires regular and consistent online participation including online group work with other students. Students are expected to familiarise themselves with the course documentation and spend around 6 hours per week on the course. This includes going through lesson content in a timely manner, participating in group work activities, contributing to online discussion forums, and submitting assessments.

Take a look at our short introduction video.

Course Aims

This course aims to give students an understanding of the fundamentals of climate change science, an appreciation for the multi-disciplinary nature of the climate change problem, and the need for a critical analysis approach to problem solving in this area. It aims to provide students with tools and skills to develop their critical thinking and help solve real-world problems related to climate change.

Relationship to Other Courses

Cobadged as GENS0401

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Outline the key drivers of the climate system, interactions between climate system components and the mechanisms involved in anthropogenic climate change.
CLO2 : Critically analyze relevant material from a range of scientific and public information sources.
CLO3 : Describe the scientific method, understand the peer review process, and explain how these are embodied in Intergovernmental Panel on Climate Change best practices.
CLO4 : Evaluate climate change mitigation strategies and describe how these affect climate change impacts.
CLO5 : Work effectively in a team to solve problems in a digital environment.

Course Learning Outcomes	Assessment Item
CLO1 : Outline the key drivers of the climate system, interactions between climate system components and the mechanisms involved in anthropogenic climate change.	• Online tests • Group-based peer review exercise • Forum discussion
CLO2 : Critically analyze relevant material from a range of scientific and public information sources.	• Individual peer review exercise • Group-based peer review exercise • Forum discussion
CLO3 : Describe the scientific method, understand the peer review process, and explain how these are embodied in Intergovernmental Panel on Climate Change best practices.	• Individual peer review exercise • Group-based peer review exercise
CLO4 : Evaluate climate change mitigation strategies and describe how these affect climate change impacts.	• Online tests • Forum discussion • Group-based peer review exercise
CLO5 : Work effectively in a team to solve problems in a digital environment.	• Forum discussion • Group-based peer review exercise

Learning and Teaching Technologies

Moodle - Learning Management System

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Online tests Assessment Format: Individual	30%	Due Date: Sunday of Weeks 4, 7 and 10
Group-based peer review exercise Assessment Format: Group	30%	Due Date: Sunday of Weeks 3, 6 and 9
Individual peer review exercise Assessment Format: Individual Short Extension: Yes (3 days)	25%	Due Date: Sunday of Week 11
Forum discussion Assessment Format: Individual Short Extension: Yes (3 days)	15%	Start Date: Not Applicable Due Date: Sunday of Week 11

Assessment Details

Online tests

Assessment Overview

These are challenging open-book multiple choice tests, focused on the core science aspects of the course. You are expected to complete three of these quizzes throughout the course; each quiz covering 2-4 weeks material. Each quiz is worth 10% of the final grade. They may be taken as an open-book test. You can only answer each question once, and each quiz must be completed in one sitting, but they are not timed.

Feedback will be provided online after completion of the task.

Course Learning Outcomes

- CLO1 : Outline the key drivers of the climate system, interactions between climate system components and the mechanisms involved in anthropogenic climate change.
- CLO4 : Evaluate climate change mitigation strategies and describe how these affect climate change impacts.

Assignment submission Turnitin type

Not Applicable

Group-based peer review exercise

Assessment Overview

The purpose of the group-based peer review exercise is for you to familiarize yourself with the peer review process. In groups, you will perform three tasks each worth 10% of the final grade:

1. Your group will be given a paper, media article or similar, to write a critical appraisal piece (1.5 pages maximum; one piece per group)

2. Your group will write peer reviews of three (3) other critical appraisals from other groups (no longer than 3 pages)

3. Your group will respond in writing to peer reviews and amend original critical appraisal.

A single mark will be provided to all members of the group, then weighted based on your peer-assessed contribution to the task.

Your group will receive feedback after each stage. A detailed rubric and an example of previous assignments are also provided to guide you.

Course Learning Outcomes

- CLO1 : Outline the key drivers of the climate system, interactions between climate system components and the mechanisms involved in anthropogenic climate change.
- CLO2 : Critically analyze relevant material from a range of scientific and public information sources.
- CLO3 : Describe the scientific method, understand the peer review process, and explain how these are embodied in Intergovernmental Panel on Climate Change best practices.
- CLO4 : Evaluate climate change mitigation strategies and describe how these affect climate change impacts.
- CLO5 : Work effectively in a team to solve problems in a digital environment.

Assignment submission Turnitin type

Not Applicable

Individual peer review exercise

Assessment Overview

You will write a reflective piece (~1000 words) on the relative merits and challenges of the peer review process and draw from your knowledge and group experience of peer review activities.

You will need to submit this essay online after the final week of teaching (Study period/Exam period).

Feedback will be provided online within 2 weeks of submission.

Course Learning Outcomes

- CLO2 : Critically analyze relevant material from a range of scientific and public information sources.
- CLO3 : Describe the scientific method, understand the peer review process, and explain how these are embodied in Intergovernmental Panel on Climate Change best practices.

Assessment Length

About 1000 words (two A4 pages)

Assignment submission Turnitin type

This assignment is submitted through Turnitin and students can see Turnitin similarity reports.

Hurdle rules

Assignment 3 should be submitted to Studiosity and improved according to their feedback before the final submission in Moodle.

Forum discussion

Assessment Overview

You will engage in weekly forum discussions related to the week's lesson content and contribute at least one post per lesson. Discussion boards for each week's material are open until the beginning of the following week. At the end of the course, a staff member will grade your contributions to discussions. A detailed rubric is given to guide your post submissions. Your contributions will be graded based on the quality, frequency and constructiveness of your written discussions in the online forum.
Written feedback will be provided in line with the rubric.

Course Learning Outcomes

- CLO1 : Outline the key drivers of the climate system, interactions between climate system components and the mechanisms involved in anthropogenic climate change.
- CLO2 : Critically analyze relevant material from a range of scientific and public information sources.
- CLO4 : Evaluate climate change mitigation strategies and describe how these affect climate change impacts.
- CLO5 : Work effectively in a team to solve problems in a digital environment.

Assessment Length

There is no fixed length for the discussion board posts. Marks do not depend on length, but the criteria on the rubric.

Assessment information

Students are expected to contribute to weekly discussion boards. Discussion boards are open for one week, from Saturday to Friday of the week's lesson. On the Sunday of Week 11, students will submit their best posts for marking.

Assignment submission Turnitin type

Not Applicable

General Assessment Information

Grading Basis

Standard

Requirements to pass course

Students should achieve a mark of at least 50 out of 100 to pass this course.

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 27 May - 2 June	Topic	The psychology of climate change
	Activity	Topic-specific moderated discussion board
Week 2 : 3 June - 9 June	Topic	The scientific method, peer review and the IPCC
	Activity	Topic-specific moderated discussion board
Week 3 : 10 June - 16 June	Topic	The greenhouse effect
	Group Activity	Group peer review assessment 1: Writing a critical summary
	Activity	Topic-specific moderated discussion board
Week 4 : 17 June - 23 June	Topic	Perturbations to the climate system
	Assessment	Multiple choice quiz 1
	Activity	Rate group members participation for group assessment 1
	Activity	Topic-specific moderated discussion board
Week 5 : 24 June - 30 June	Topic	Climate observations and extremes
	Activity	Topic-specific moderated discussion board
Week 6 : 1 July - 7 July	Topic	Global circulation and climate variability
	Group Activity	Group peer review assessment 2: Writing peer reviews
	Activity	Topic-specific moderated discussion board
Week 7 : 8 July - 14 July	Topic	Past climate variations
	Assessment	Multiple choice quiz 2
	Activity	Rate group members participation for group assessment 2
	Activity	Topic-specific moderated discussion board
Week 8 : 15 July - 21 July	Topic	Climate change law
	Activity	Topic-specific moderated discussion board
Week 9 : 22 July - 28 July	Topic	Climate models, future projections and climate impacts
	Group Activity	Group peer review assessment 3: Addressing peer reviews
	Activity	Topic-specific moderated discussion board
Week 10 : 29 July - 4 August	Topic	Energy systems
	Assessment	Multiple choice quiz 3
	Activity	Rate group members participation for group assessment 3
	Activity	Topic-specific moderated discussion board
Week 11 : 5 August - 11 August	Assessment	Individual peer review reflection
	Assessment	Submission of discussion board portfolio

Attendance Requirements

Not Applicable - as no class attendance is required

Course Resources

Prescribed Resources

All in Moodle

Recommended Resources

All in Moodle

Additional Costs

None

Course Evaluation and Development

We have explicit links within each week's material in the course Moodle page inviting feedback and suggestions for potential improvements - we really would like to know what might work better, what's relevant that might of interest but hasn't been included, or how we might improve our approach. We adjust the course content and approach from year to year based on the feedback we have got from students in the past.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
	Andrea Tascha etto					No	Yes
	Anna Ukkola					No	No

Other Useful Information

Academic Information

Upon your enrolment at UNSW, you share responsibility with us for maintaining a safe, harmonious and tolerant University environment.

You are required to:

- Comply with the University's conditions of enrolment.
- Act responsibly, ethically, safely and with integrity.
- Observe standards of equity and respect in dealing with every member of the UNSW community.
- Engage in lawful behaviour.
- Use and care for University resources in a responsible and appropriate manner.
- Maintain the University's reputation and good standing.

For more information, visit the UNSW Student Code of Conduct Website.

Academic Honesty and Plagarism

Referencing is a way of acknowledging the sources of information that you use to research your

assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism.
Further information about referencing styles can be located at https://student.unsw.edu.au/referencing

Academic integrity is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits: honesty, trust, fairness, respect, responsibility and courage. At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.
Further information about academic integrity, plagiarism and the use of AI in assessments can be located at:

- The Current Students site,
- The ELISE training site, and
- The Use of AI for assessments site.

The Student Conduct and Integrity Unit provides further resources to assist you to understand your conduct obligations as a student: https://student.unsw.edu.au/conduct

Submission of Assessment Tasks

Penalty for Late Submissions

UNSW has a standard late submission penalty of:

- 5% per day,
- for all assessments where a penalty applies,
- capped at five days (120 hours) from the assessment deadline, after which a student cannot submit an assessment, and
- no permitted variation.

Any variations to the above will be explicitly stated in the Course Outline for a given course or assessment task.

Students are expected to manage their time to meet deadlines and to request extensions as early as possible before the deadline.

Special Consideration

If circumstances prevent you from attending/completing an assessment task, you must officially apply for special consideration, usually within 3 days of the sitting date/due date. You can apply

by logging onto myUNSW and following the link in the My Student Profile Tab. Medical documentation or other documentation explaining your absence must be submitted with your application. Once your application has been assessed, you will be contacted via your student email address to be advised of the official outcome and any actions that need to be taken from there. For more information about special consideration, please visit: https://student.unsw.edu.au/special-consideration

Important note: UNSW has a "fit to sit/submit" rule, which means that if you sit an exam or submit a piece of assessment, you are declaring yourself fit to do so and cannot later apply for Special Consideration. This is to ensure that if you feel unwell or are faced with significant circumstances beyond your control that affect your ability to study, you do not sit an examination or submit an assessment that does not reflect your best performance. Instead, you should apply for Special Consideration as soon as you realise you are not well enough or are otherwise unable to sit or submit an assessment.

Faculty-specific Information

Additional support for students

- The Current Students Gateway
- Student Support
- Academic Skills and Support
- Student Wellbeing, Health and Safety
- Equitable Learning Services
- UNSW IT Service Centre
- Science EDI Student Initiatives, Offerings and Guidelines