



UNSW
SYDNEY

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University



IEST6911

Managing Greenhouse Gas Emissions

Summer // 2019

Course Overview

Staff Contact Details

Convenors

Name	Email	Availability	Location	Phone
A/Prof Paul Brown	paul.brown@unsw.edu.au	via email	Morven Brown Building, MB365	0414385570

Lecturers

Name	Email	Availability	Location	Phone
Dr. Mark Diesendorf	m.diesendorf@unsw.edu.au	9am - 4:45pm (c/- School) or via email	c/- School Office, 258, Level 2, Morven Brown Building	0402 940892
Dr. Dennys Angove	d.angove@unsw.edu.au	9am - 4:45pm (c/- School) or via email	c/- School Office, 258, Level 2, Morven Brown Building	+61 2 9385 1681

School Contact Information

School of Humanities and Languages

Location: School Office, Morven Brown Building, Level 2, 258

Opening Hours: Monday - Friday, 9am - 5pm

Phone: +61 2 9385 1681

Fax: +61 2 9385 8705

Email: hal@unsw.edu.au

Course Details

Credit Points 6

Summary of the Course

This interdisciplinary short course teaches students to explain and evaluate the scientific evidence for the anthropogenic greenhouse effect and its potential impacts; evaluate the various technologies proposed for greenhouse gas mitigation; develop policies and strategies for all levels of government to reduce substantially greenhouse gas emissions; and compare and evaluate different scenarios for achieving these reductions in the energy and transport sectors.

Course Learning Outcomes

1. Explain and evaluate the key issues in the scientific evidence for the enhanced greenhouse effect (EGE) and its potential impacts, both biophysical and socio-economic.
2. Evaluate the various technologies proposed as greenhouse solutions.
3. Develop and evaluate policies, strategies and action plans for all levels of government and other stakeholders to reduce substantially Australia's greenhouse gas emissions.
4. Compare different scenarios for achieving the reductions.
5. Conduct intelligent and constructive dialogues with policy professionals from all principal stakeholders about reducing greenhouse gas emissions.

Teaching Strategies

This interdisciplinary short course uses lectures and tutorials to teach students to explain and evaluate the scientific evidence for the anthropogenic greenhouse effect and its potential impacts; evaluate the various technologies proposed for greenhouse gas mitigation; develop policies and strategies for all levels of government to reduce substantially greenhouse gas emissions; and compare and evaluate different scenarios for achieving these reductions in the energy and transport sectors. It is run intensively, with 3 days of classes, followed by a break and then another 2 days to allow students to read and prepare a presentation. Distance mode is available and the distance students have posts staggered over a longer time period to allow them more time to study the materials.

Assessment

Please carefully read all assessment instructions and guidance provided in your Moodle site.

Assessment Tasks

Assessment task	Weight	Due Date	Student Learning Outcomes Assessed
Group presentation to class	35%	04/12/2018 09:00 AM	1,5
In-class examination	25%	07/12/2018 08:00 PM	1,2
Report	40%	21/01/2019 06:00 PM	2,3,4,5

Assessment Details

Assessment 1: Group presentation to class

Start date: Not Applicable

Length: On-campus students 20 min presentation in groups. Distance student individual poster plus on-line discussion.

Details: Approx 20 min group presentation. Verbal feedback immediately followed by a written mark sheet.

Additional details:

Please see detailed instructions in your Moodle site.

Submission notes: Distance and on-campus students have different submission requirements. See Moodle site.

Turnitin setting: This is not a Turnitin assignment

Assessment 2: In-class examination

Start date: 07/12/2018 06:00 PM

Details: In-class exam (ca. 2 hours) with written feedback provided.

Additional details:

Please see instructions in your Moodle site. Exam can be taken in the classroom or by distance.

Submission notes: See Moodle site for details

Turnitin setting: This is not a Turnitin assignment

Assessment 3: Report

Start date: Not Applicable

Length: approx 2000 words

Details: Final report. Approx 2000 words. Feedback via individual comments. This is the final assessment for attendance purposes.

Additional details:

Full details available via your Moodle site

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

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

Course Schedule

[View class timetable](#)

Timetable

Date	Type	Content
Week 1: 26 November - 2 December	Blended	<p>For on-campus students, there are two days of classes, and the class schedule is below.</p> <p>Distance students should also work intensively across this week.</p> <p>Further details are in your Moodle site.</p> <p>Day 1 – 26th Nov, 9am-5pm</p> <p>Introduction; Review of greenhouse (GH) science & impacts; Introduction to energy</p> <hr/> <p>DAY 2: 27th Nov, 9am-5pm</p> <p>Electricity generation systems; Renewable energy technologies; Renewable energy scenarios; Renewable energy deniers</p> <hr/> <p>Lecture Break: 28th Nov. to 3rd December inclusive</p> <p>Preparation of Assessment 1 on implementing efficient energy use.</p>
Week 2: 3 December - 9 December	Blended	<p>For on-campus students, there are three days of classes in this week, and the class schedule is below.</p> <p>Distance students should also work intensively across this week.</p> <p>NOTE: All students have an exam on Friday of this week.</p>

	<p>Further details are in your Moodle site.</p> <hr/> <p>DAY 3: 3 Dec, 9am-5pm</p> <p>Nuclear energy, Transport, Policies for climate mitigation, Clean coal technology (CCT)</p> <hr/> <p>DAY 4: 4th Dec.; 9 am-5 pm</p> <p>Group presentations of Assessment 1 by on-campus students; individual posters submitted by distance students.</p> <hr/> <p>DAY 5: 5th Dec, 9am-5pm</p> <p>Policies (continued), international policies and politics.</p> <hr/> <p>6th December: Study Break – no classes</p> <p>7th December: Assessment 2, Short Exam: see Moodle site for details.</p>
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Resources

Prescribed Resources

Your textbook is Diesendorf M (2013) *Sustainable Energy Solutions for Climate Change*, UNSW Press, Sydney, and Routledge-Earthscan, London.

See Moodle site for details

Recommended Resources

See Moodle site for details

Course Evaluation and Development

Student feedback will be gathered via MyExperience and via in-class and on-line informal discussion. The time available for staff to assess and comment on your assignments has been increased in response to previous feedback.

Submission of Assessment Tasks

Turnitin Submission

If you encounter a problem when attempting to submit your assignment through Turnitin, please telephone External Support on 9385 3331 or email them on externalteltsupport@unsw.edu.au. Support hours are 8:00am – 10:00pm on weekdays and 9:00am – 5:00pm on weekends (365 days a year). If you are unable to submit your assignment due to a fault with Turnitin you may apply for an extension, but you must retain your ticket number from External Support (along with any other relevant documents) to include as evidence to support your extension application. If you email External Support you will automatically receive a ticket number, but if you telephone you will need to specifically ask for one. Turnitin also provides updates on their system status on Twitter.

Generally, assessment tasks must be submitted electronically via either Turnitin or a Moodle assignment. In instances where this is not possible, it will be stated on your course's Moodle site with alternative submission details.

For information on how to submit assignments online via Moodle:

<https://student.unsw.edu.au/how-submit-assignment-moodle>

Late Assessment Penalties

Students are responsible for the submission of assessment tasks by the required dates and times. Depending on the extent of delay in the submission of an assessment task past the due date and time, one of the following late penalties will apply unless special consideration or a blanket extension due to a technical outage is granted. For the purpose of late penalty calculation, a 'day' is deemed to be each 24-hour period (or part thereof) past the stipulated deadline for submission.

Work submitted less than 10 days after the stipulated deadline is subject to a deduction of 5% of the total awardable mark from the mark that would have been achieved if not for the penalty for every day past the stipulated deadline for submission. That is, a student who submits an assignment with a stipulated deadline of 4:00pm on 13 May 2016 at 4:10pm on 14 May 2016 will incur a deduction of 10%.

Task with a non–percentage mark

If the task is marked out of 25, then late submission will attract a penalty of a deduction of 1.25 from the mark awarded to the student for every 24-hour period (or part thereof) past the stipulated deadline. Example: A student submits an essay 48 hours and 10 minutes after the stipulated deadline. The total possible mark for the essay is 25. The essay receives a mark of 17. The student's mark is therefore $17 - [25 (0.05 \times 3)] = 13.25$

Task with a percentage mark

If the task is marked out of 100%, then late submission will attract a penalty of a deduction of 5% from the mark awarded to the student for every 24-hour period (or part thereof) past the stipulated deadline. Example: A student submits an essay 48 hours and 10 minutes after the stipulated deadline. The essay is marked out of 100%. The essay receives a mark of 68. The student's mark is therefore $68 - 15 = 53$

Work submitted 10 to 19 days after the stipulated deadline will be assessed and feedback provided but a mark of zero will be recorded. If the work would have received a pass mark but for the lateness and

the work is a compulsory course component (hurdle requirement), a student will be deemed to have met that requirement;

Work submitted 20 or more days after the stipulated deadline will not be accepted for assessment and will receive no feedback, mark or grade. If the assessment task is a compulsory component of the course a student will receive an Unsatisfactory Fail (UF) grade as a result of unsatisfactory performance in an essential component of the course.

This information is also available at: <https://www.arts.unsw.edu.au/current-students/academic-information/protocols-guidelines/>

Supplementary assessments

The form of the supplementary assessment need not be identical to the original assessment but it must assess the same learning outcomes.

A supplementary assessment will be offered to a student who fails an assessment task in either of the following circumstances:

- Supplementary assessment will be offered to any student who fails an assessment task if their request for Special Consideration for that task is approved. The mark awarded for the assessment task will be based solely on the supplementary assessment.
- Where a student fails an assessment task in a course in the final term of their program, but does not have an approved Special Consideration for that task, supplementary assessment will still be offered in cases where passing the task would have resulted in the student passing the course and completing the program.

Schools may choose to offer supplementary assessments under other circumstances than those listed above. Decisions by Schools to offer supplementary assessments under other circumstances than those listed above should be guided by local processes to promote principled and consistent decision-making.

The mark awarded for a supplementary assessment, in the absence of Special Consideration, will be capped:

- Where a supplementary assessment is provided for a student who fails an assessment task in any course, the final mark awarded for the assessment task will be capped at 50%.
- Where a supplementary assessment is provided to a student with a Fail based on the overall course result, the final mark for the course will be capped at 50%.

This information is also available at:

<https://www.arts.unsw.edu.au/current-students/academic-information/protocols-guidelines/>

Special Consideration Applications

You can apply for special consideration when illness or other circumstances interfere with your assessment performance.

Sickness, misadventure or other circumstances beyond your control may:

- * Prevent you from completing a course requirement,
- * Keep you from attending an assessable activity,
- * Stop you submitting assessable work for a course,
- * Significantly affect your performance in assessable work, be it a formal end-of-term examination, a class test, a laboratory test, a seminar presentation or any other form of assessment.

For further details in relation to Special Consideration including "When to Apply", "How to Apply" and "Supporting Documentation" please refer to the Special Consideration website:

<https://student.unsw.edu.au/special-consideration>

Academic Honesty and Plagiarism

Plagiarism is using the words or ideas of others and presenting them as your own. It can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement.

UNSW groups plagiarism into the following categories:

Copying: using the same or very similar words to the original text or idea without acknowledging the source or using quotation marks. This also applies to images, art and design projects, as well as presentations where someone presents another's ideas or words without credit.

Inappropriate paraphrasing: Changing a few words and phrases while mostly retaining the original structure and/or progression of ideas of the original, and information without acknowledgement. This also applies in presentations where someone paraphrases another's ideas or words without credit and to piecing together quotes and paraphrases into a new whole, without appropriate referencing.

Collusion: working with others but passing off the work as a person's individual work. Collusion also includes providing your work to another student before the due date, or for the purpose of them plagiarising at any time, paying another person to perform an academic task, stealing or acquiring another person's academic work and copying it, offering to complete another person's work or seeking payment for completing academic work.

Inappropriate citation: Citing sources which have not been read, without acknowledging the "secondary" source from which knowledge of them has been obtained.

Duplication ("self-plagiarism"): submitting your own work, in whole or in part, where it has previously been prepared or submitted for another assessment or course at UNSW or another university.

Correct referencing practices:

- Paraphrasing, summarising, essay writing and time management
- Appropriate use of and attribution for a range of materials including text, images, formulae and concepts.

Individual assistance is available on request from The Learning Centre (<http://www.lc.unsw.edu.au/>). Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting and proper referencing of sources in preparing all assessment items.

UNSW Library also has the ELISE tool available to assist you with your study at UNSW. ELISE is designed to introduce new students to studying at UNSW but it can also be a great refresher during your study.

Completing the ELISE tutorial and quiz will enable you to:

- analyse topics, plan responses and organise research for academic writing and other assessment tasks
- effectively and efficiently find appropriate information sources and evaluate relevance to your needs
- use and manage information effectively to accomplish a specific purpose
- better manage your time

- understand your rights and responsibilities as a student at UNSW
- be aware of plagiarism, copyright, UNSW Student Code of Conduct and Acceptable Use of UNSW ICT Resources Policy
- be aware of the standards of behaviour expected of everyone in the UNSW community
- locate services and information about UNSW and UNSW Library

Some of these areas will be familiar to you, others will be new. Gaining a solid understanding of all the related aspects of ELISE will help you make the most of your studies at UNSW.

<http://subjectguides.library.unsw.edu.au/elise/aboutelise>

Academic Information

For essential student information relating to:

- requests for extension;
- late submissions guidelines;
- review of marks;
- UNSW Health and Safety policies;
- examination procedures;
- special consideration in the event of illness or misadventure;
- student equity and disability;
- and other essential academic information, see

<https://www.arts.unsw.edu.au/current-students/academic-information/protocols-guidelines/>

Image Credit

Sydney markets: localised renewable energy – solar panels on a commercial building. Photo by Dennys Angove.

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