

Course guide to Climate Change Responses.

This is a Postgraduate 1 semester course, taught to students in the Master of Urban Planning and Environment at RMIT University.

Course Description

As climate change proceeds, we need to think critically about how we are, and should be, responding. In this course you will gain integrated, critical knowledge of climate change responses in theory and practice. Looking at responses from the individual to institutional to international level, you will explore the social, cultural, political and psychological aspects of such responses and the practical challenges they pose. You will gain a sophisticated understanding of how responses including adaptation, mitigation, climate-smart development, resilience thinking and carbon sequestration are shaped by existing contexts and demand new capabilities.

The course focuses squarely on the “human dimensions” of climate change, including the role of science in policy. Drawing on case studies from around the world, you will be required to consider how climate change is understood and framed differently by diverse groups of people and relates to other pressing challenges such as urbanisation. In particular, you will explore the conceptual and practical issues climate change poses to urban dwellers and planners, including the complex issues of vulnerability, adaptive capacity, justice and ethics that incremental and transformational responses generate. You will develop an understanding of the barriers to ideal climate change responses and possible strategies for addressing them.

Objectives/Learning Outcomes/Capability Development:

In this course you will develop the following program learning outcomes:

- Critically analyse, synthesise and reflect on recent trends and scholarly analysis of the effects and consequences of urbanisation internationally, including the interplay of ecological, economic, political, social and cultural factors
- Apply the specialist knowledge and technical skills required to understand particular contexts and prepare appropriate solutions to a range of environmental and urban challenges
- Clearly communicate complex research findings, proposals and plans to diverse audiences.

Upon successful completion of this course you will be able to:

- Knowledgeably discuss the main practical, philosophical and political challenges posed by climate change and the role of cultural and context-specific factors
- Identify a suite of possible climate change responses and their relationship, and critically assess their social, economic and environmental advantages and disadvantages
- Compare and critically assess climate change responses from around the world
- Recommend factors to consider in designing or assessing any climate change response.

Overview of Learning Activities

Learning activities will involve lectures, tutorial discussions and online interactions.

Details of Learning Activities

Two hour lecturials will be conducted on campus each week, with online videos and opportunities for interaction provided for online students.

Teaching Schedule

Course Schedule: <i>Climate Change Responses</i>			
Week	Topic	Readings and Activities	Assessment
Week 1	Introduction to Course Characteristics of Climate Change	<p>Reading: Levin, Kelly, et al. “Overcoming the tragedy of super wicked problems: constraining our future selves to ameliorate global climate change” (Links to an external site.)Links to an external site.</p> <p>Activity:</p> <ul style="list-style-type: none"> • Introductions • Outline of Assessments 	
Week 2	Mitigation Responses	<p>Reading: Newman, Joshua, and Brian W. Head. "Categories of failure in climate change mitigation policy in Australia." (Links to an external site.)Links to an external site. <i>Public Policy and Administration</i> 30.3-4 (2015): 342-358.</p> <p>Activity: Super Wicked Problems</p>	
Week 3	Transition management	<p>Reading: Wesely, Julia, et al. “Transition management as an</p>	

		<p>approach to deal with climate change." (Links to an external site.)Links to an external site. <i>Proceedings of the Transformation in a Changing Climate Conference, Oslo.</i> 2013.</p>	
Week 4	Barriers to Mitigation	<p>Reading: Rickards, Lauren, John Wiseman, and Yoshi Kashima. "Barriers to effective climate change mitigation: the case of senior government and business decision makers." (Links to an external site.)Links to an external site. <i>Wiley Interdisciplinary Reviews: Climate Change</i> 5.6 (2014): 753-773.</p> <p>Activity: Assessments Work</p>	<p>Assessment 1 due: Evaluation of a climate change abatement program</p>
Week 5	Australian Responses to Climate Change	<p>Reading: Hua, Yaping, Monica Oliphant, and Eric Jing Hu. "Development of renewable energy in Australia and China: A comparison of policies and status." (Links to an external site.)Links to an external site. <i>Renewable Energy</i> 85 (2016): 1044-1051.</p> <p>Activity: Assessments Work</p>	
Week 6	Mitigation Responses in Victoria	<p>Reading: Wilder, M. et al. (2017), Independent Review of the Climate Change Act 2010 (Links to an external site.)Links to an external site.,</p>	

		Victorian Government, Melbourne. Activity: Climate Justice	
Week 7	Introduction to Adaptation	Reading: Anguelovski and M. Grigorova (2016). " When exposure to climate change is not enough: Exploring heatwave adaptive capacity of a multi-ethnic, low-income urban community in Australia. " (Links to an external site.) Links to an external site. <i>Urban Climate</i> 17 : 248-265. Understanding Impacts	Assessment 2 due: Innovative ways to tackle climate change in your home town
Week 8	Adaptation Principles and Practice	Reading: Barnett, J. and S. O'Neill (2010). " Maladaptation. " (Links to an external site.) Links to an external site. <i>Global Environmental Change</i> 20 (2): 211-213. Activity: Conducting a Place Based Study	
Week 9	Building Resilience	Reading: McEvoy, Darryn, Hartmut Fünfgeld, and Karyn Bosomworth. " Resilience and climate change adaptation: the importance of framing. " (Links to an external site.) Links to an external site. <i>Planning Practice & Research</i> 28.3 (2013): 280-293. Activity: Assessments Work	Assessment 3: Climate Change Impact Report

Week 10	Adaptation Responses	<p>Reading: Larsen, Carl, and Shelley McGuinness. "Climate Change Adaptation Planning with Peri-Urban Local Government in Victoria, Australia." (Links to an external site.)Links to an external site. <i>Balanced Urban Development: Options and Strategies for Liveable Cities.</i> Springer, Cham, 2016. 395-407.</p> <p>Activity: Assessments Work</p>	
Week 11	Transformational Responses to Climate Change	<p>Reading: Park, S. E., et al. "Informing adaptation responses to climate change through theories of transformation." (Links to an external site.)Links to an external site. <i>Global Environmental Change</i> 22.1 (2012): 115-126.</p> <p>Activity: Assessments Work</p>	
Week 12	Wrap Up	<p>Activity: Future Climate Responses</p>	<p>Assessment 4: Climate Change Adaptation Plan</p>

Assessment Tasks

Assessments

For each assessment you need to:

- Communicate using tables and figures where appropriate (including at least one in each assignment).

- Write in a straight-forward and scholarly manner
- Inform your report with insights from the peer-reviewed academic literature

Evaluation of a climate change abatement program

1000- 1200 words (excluding references)

30% of mark

Task:

To assess a real world climate change abatement (greenhouse gas mitigation) program or campaign from one of the following sort of categories:

1. A national or state or local government scheme
2. A professional capacity building program
3. A business corporate social responsibility program
4. A community based program
5. A behaviour change program
6. A direct action activist campaign
7. A social media or news media campaign

Questions:

1. What sort of change is the program aiming to generate? Among which groups and why? How is it trying to generate this change?
2. How might the program be improved?
3. What are the strengths and weaknesses of such an approach to climate change mitigation?

To help you this assignment there is a range of literature to draw on. Different approaches tend to be associated with different perspectives on and assumptions about how the world works.

2. Innovative ways to tackle climate change in your home town

Video format

10% of mark

Task:

To record a 4-5 minute video about any innovative measures to tackle climate change in your home town.

3. Climate Change Impact Report

1000 words (excluding references)

30% of mark

Task:

Provide an overview of the different ways that climate change will affect an identified local government area and different groups living within it

Questions:

1. What climatic changes is the area exposed to?
2. What flow on effects (eg ecological, economic) and indirect effects (eg policy changes) may the area experience?
3. In what ways are different assets and groups vulnerable to these changes, given their existing situation?

For this report you do not need to use maps, but you are very welcome to. You do need to produce at least one original figure or table to help you learn how to communicate visually. Have a look at real world reports and academic literature about climate change exposure and vulnerability to see the sort of factors they use in constructing indicators of exposure and vulnerability.

For example: Kumar, P., D. Geneletti and H. Nagendra (2016). "Spatial assessment of climate change vulnerability at city scale: A study in Bangalore, India." *Land Use Policy* 58: 514-532.

4. Climate Change Adaptation Plan

1000 words (excluding references)

30% of mark

Task:

Write a climate change adaptation plan for a real world example from one of the following categories:

1. Part of a local government's operations
2. A city or town
3. A Catchment Management Authority
4. A business
5. A nongovernmental organization

Questions to consider:

1. What are the main climate change impacts your case is vulnerable to?
2. What incremental and transformational adaptation measures could it adopt to build its impact specific and generic resilience?
3. What is needed to implement these improvements?

4. What are some of the positive and negative side-effects of these measures? (Note the need to avoid maladaptation).

For this report you do not need to use maps, but you are very welcome to. You do need to produce at least one original figure or table.