ENST90033 Climate Change Mitigation

Credit Points:	12.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 36 hours (one x two hour seminar and one x one hour tutorial each week) Total Time Commitment: Students will be expected to devote 170 hours of study to this subject over the semester, including assessments and readings.
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	Students are expected to have a general understanding of the nature of anthropogenic climate change, and its likely range of impacts.
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability
Coordinator:	Prof Stefan Arndt
Contact:	Faculty of Science *Current Student Enquiries* Phone: 13 MELB (13 6352) Email: **13MELB@unimelb.edu.au (mailto:13MELB@unimelb.edu.au)**
Subject Overview:	This subject will focus on the complex topic of climate change mitigation. Climate change mitigation includes actions we take globally, nationally and individually to limit changes in the global climate caused by human activities. Mitigation activities are designed to reduce greenhouse emissions and/or increase the amount of greenhouse gases removed from the atmosphere by greenhouse sinks. The subject will provide a critical and multidisciplinary overview of strategies for climate change mitigation but focuses on the technical feasibility and effectiveness of different mitigation options in the many different sectors that emit or sequester greenhouse gases. We will discuss in detail the emissions profiles and potentials for reducing emissions in energy systems, transport, buildings and industry, but we also include agriculture and land based systems and new breakthrough technologies. The subject will discuss the criteria and considerations for evaluating climate change mitigation, assess the feasibility in a technical and economic sense and the potential transformation pathways. The strengths and weaknesses of mitigation strategies will be discussed in the context of national and international frameworks and economies. It will be demonstrated that climate change mitigation cannot be achieved by a single action but that multiple approaches may be necessary to achieve meaningful mitigation and that many societal sectors will be required to take action.
Learning Outcomes:	On completion of this subjects students will be able to:

	# demonstrate familiarity with climate change mitigation theories and practices # assess the relevance of opportunities for climate change mitigation at a range of scales # identify realistic climate change mitigation strategies at a range of scales; and # evaluate the barriers and limits to these strategies
Assessment:	A 15 minute oral presentation due during semester, 30% An essay (3000 words) due at the end of semester, 70%
Prescribed Texts:	None
Recommended Texts:	A subject reader will be required for this subject.
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	On completion of this subject students will have: # specialist knowledge in the fields of climate change mitigation and policy # skills for analysing challenges of climate change mitigation at a range of scales # capacity to apply knowledge from a range of scientific perspectives to understand climate change challenges # capacity to envision and critically evaluate strategies for facilitating climate change mitigation in a range of contexts
Related Majors/Minors/ Specialisations:	Climate Change Climate Change Tailored Specialisation Tailored Specialisation