



Primary Industries Climate Challenges Centre

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BUILDING CAPACITY IN THE PRIMARY INDUSTRIES

The Primary Industries Climate Challenges Centre (PICCC) is a collaborative venture between the University of Melbourne and the Department of Primary Industries Victoria.

PICCC combines the resources and activities of its partners in research, development and extension to help the primary industries respond to a changing climate.

Along with providing research leadership, PICCC's aims are to build the capacity of both the research community and the broader primary industries to respond to climate challenges. PICCC's capacity building program encourages postgraduate research and provides professional development opportunities for agricultural service providers.



Photo: Tara Hurst



Postgraduate research

From 2012 PICCC will fund postgraduate students to undertake research relevant to the climate challenges facing Australia's primary industries. The PICCC postgraduate research scholarships will provide two new PhD students with top-up stipends for three years, to contribute towards their studies at the University of Melbourne.

The scholarship recipients will undertake research aligned with PICCC's research themes. Projects may cover the production, environmental, policy and social issues around climate challenges, at both the enterprise and landscape level.

Scholarship recipients will join a cohort of current postgraduate students supervised by PICCC researchers at the University of Melbourne. Most of these students are co-supervised by researchers from the Department of Primary Industries Victoria.

Student research projects cover a broad range of topics, including:

- nitrogen efficiency and nitrous oxide abatement options for the dairy and grains industry
- the likely impacts of climate change on perennial horticulture
- opportunities for farmers in offset markets
- pasture plant breeding options for methane mitigation
- the effects of elevated carbon dioxide on crop production
- climate impacts on animal production.

Postgraduate Certificate in Climate Change for Primary Industries

The Postgraduate Certificate in Climate Change for Primary Industries has been developed as a collaborative offering between the University of Melbourne and the Department of Primary Industries Victoria.

The program is custom designed to meet the needs of practitioners providing services to farmers. It aims to improve climate change knowledge among agricultural service professionals so that they can better support the industry in a changing climate.

Past and current students include extension and policy officers, project managers, consultants and land management professionals, all with connections to food production, agribusiness, forest and resource management. Graduates are well positioned to advise farmers on profitable and sustainable production, and better equipped to help their organisations respond to the mitigation and adaptation challenges facing their sector.

The program is delivered as four subjects, each taught across a five-day intensive block by leading academics from the University of Melbourne. The coursework is delivered over 12 months, beginning in October each year.

The four subjects cover:

- the fundamental processes and dynamics important for climate variability and climate change
- the processes by which greenhouse gases are emitted from agricultural systems, including options for mitigation
- the potential impacts of climate change on food production around the world, including potential adaptation strategies for Victorian and Australian agriculture
- the expected costs and benefits of changing climatic conditions for agricultural production in Australia and internationally.

The program is led by PICCC and available to agricultural professionals from across Australia.





Photo: Bridgeway



Participants in the Postgraduate Certificate have strongly endorsed the program...

“Agriculture is an applied science: working in the climate area requires a comprehensive knowledge of the latest developments in climate variability and change, greenhouse gas sources and mitigation potential, adaptation options, and climate and economic strategy. This course has enhanced my knowledge base and created a solid platform for leading the agency in the climate change field.”

— **extension officer**

“I came away from the course with a significantly improved understanding of the underpinning science that informs both the climate change debate and analyses of potential risks and opportunities for Victorian landholders.”

— **policy maker**

“In my role I need to be abreast of government policy in the areas of environment and production, and to be able to make it relevant to landholders. This course has given me the confidence to do this and to also have an informed debate with climate policy makers.”

— **catchment management officer**

Master of Environment — Climate Change stream

The University of Melbourne offers a specialised postgraduate education program in Climate Change as part of the Graduate Environmental Program. This program is the only truly multi-disciplinary curriculum of its kind in Australia, offering over 200 subjects from 10 faculties at the University of Melbourne.

In a Master of Environment (Climate Change) students can study international conventions, strategic government and business policy, climate science, energy technology, economic analysis and management. Students learn how to offer leadership through a solid understanding of both theoretical and practical applications of policy and science, technological limits, potentials and risks.

The program is offered as either one- or two-year Masters and its flexible nature means that students can design the course to meet their specific needs. PICCC researchers and board members coordinate this Climate Change stream and offer a number of subjects.



Photo: Shutterstock



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Advancing the sustainability of Australia's food and fibre production by helping primary industries manage the risks and opportunities from climate challenges.

Specialist short courses

Using the teaching and professional education resources available through the founding partners, PICCC develops and delivers specialist short courses on climate change, mitigation and adaptation themes, tailored to the needs of individual organisations.

Throughout 2011, PICCC has been delivering a series of training sessions on the Carbon Farming Initiative (CFI) on behalf of the federal Department of Agriculture, Fisheries and Forestry. The course covers the policy background to the CFI, the science of emissions, options for abatement, the process for developing offset methods, the roles of aggregators and project managers, and case studies of likely abatement actions.

The first round of training, completed in September 2011, was delivered to national Landcare facilitators from across Australia. A second round will be delivered to a wider audience, including other natural resource management and farming groups.



Further information

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A joint venture between the Department of Primary Industries Victoria and the University of Melbourne.



Department of
Primary Industries



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