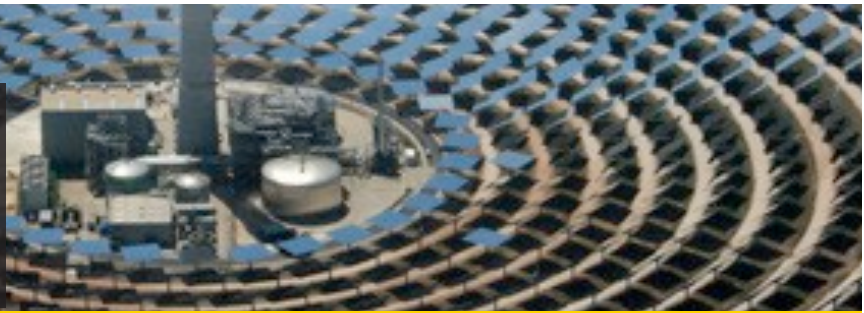


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for our planet



IEST6911 Managing Greenhouse Gas Emissions

Masters by Coursework Elective open to senior undergraduates

Never Stand Still

Science

School of Biological, Earth and Environmental Sciences



Course Coordinator: A/Prof. Mark Diesendorf,

Email: m.diesendorf@unsw.edu.au

Course code: IEST6911

Eligibility: Postgraduate and 3rd-4th year undergraduate students

Credit weight: 6 Units of Credit

Mode of study: On-campus intensive. Distance mode available in Moodle

Dates: 23 November - 2 December, with an assignment period in the middle. Classes run 10.00am –5.00pm

Room: 418, Electrical Engineering Building (G17)

After introducing the basics of climate science, climate impacts and energy on the first day, this intensive interdisciplinary course takes students rapidly to some of the frontiers of research and public debate on the mitigation of greenhouse gas emissions in the energy sector. We focus on energy efficiency/conservation technologies/measures, the planning and operation of electricity supply-demand systems with high penetrations of renewable energy, and sustainable urban transport. We evaluate energy and transport technologies and discuss the strategies and policy options for transforming our energy system into one that is environmentally, socially and economically sustainable.

We examine critically some of the key issues in this fiercely contested arena:

- Has global warming stopped?
- Could we operate Australia and the world entirely on renewable energy?
- Is it true that high electricity prices are caused mainly by renewable energy subsidies?
- Could gas be a transitional fuel to sustainable energy?
- Does nuclear energy have a role? Is it safe and affordable?
- What roles can individuals, local communities, political parties and other organisations play in assisting the transition to sustainable energy?

You do **not** need a scientific or engineering background to do this course.

Assessment: Group presentation (on-campus students) or individual online poster (distance students) 35%; individual short exam on basic concepts and facts: 25%; individual paper or report 40%.

Textbook: Diesendorf M (2014) Sustainable Energy Solutions for Climate Change, UNSW Press, Sydney, and Routledge-Earthscan, London. (Recommended preliminary reading: chapters 1–3).

Introduction/overview of course: available to prospective students from Course Coordinator



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