



WICKED PROBLEMS

Course Overview



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How do we solve a problem like climate change? And how do we provide warning for people that live and work in earthquake and volcanic areas of our planet? These are just two wicked problems that we face in the 21st Century. Wicked problems are complex cultural or social issues that are very difficult for us to solve for reasons such as incomplete or contradictory scientific data, the number of people and opinions involved (including Fake News!), economic factors, and the interconnected nature of these issues with other problems. Come join us to expand your scientific knowledge and to sharpen your critical thinking skills!



Learning Outcomes

The course is structured around 5 core competencies:

- Appraise two Wicked Problems in terms of their cultural and societal impacts on humans.
- Utilise real-world scientific datasets to offer mitigation and adaptation strategies to combat climate change.
- Understand how ethical, economic and cultural considerations have to be considered in developing scientifically plausible early warning systems in geophysical hazardous areas.
- Critically evaluate social media and other information outlets for their content in terms of 'Fake News' and misleading content.
- Give students the scientific knowledge and tools to successfully debate and counter misinformation about Wicked Problems



Homework

Students will be required to complete on average 1 hour of homework per week.



Assessment

For successful completion of this unit students will be required to submit the following tasks:

• Climate Change Wicked Problem

Students research the climate change Wicked Problem using scientific datasets and online resources to offer mitigation and adaptation strategies to combat climate change

• Geophysical Hazards Wicked Problem

Students choose an area of the Earth where volcanic and seismic hazards directly impact Humans and devise scientifically-plausible warning system(s) to assist in community preparedness for these geophysical hazards