



Environmental contamination expert Professor Mark Taylor

Our dynamic and dedicated group of academics and research students study and teach the interactions that occur between the physical, biological and human environments. We study how the environment works across space and how these dynamics have changed over time. We are focused on how humans have altered environments and how environments can be better managed in future.

Recently, Professor Mark Taylor was requested by the New South Wales Government to review the state's Environment Protection Authority's Management of Contaminated Sites. In 2015, ARIES: Australian Research Institute for Environment and Sustainability, won the New South Wales National Trust Heritage Award in two categories, Conservation – Landscape and Tours and Multimedia.

Associate Professor Kirstie Fryirs, co-developer of the River Styles Framework, is a world-renowned leader in river health and geomorphology. The multi-award-winning River Styles Framework is widely used in best practice river management, prioritisation and planning, with more than 200,000 kilometres of river being mapped and assessed in Australia, Europe, the United States, China and New Zealand.

Our environmental scientists are committed to excellence in research, quality teaching, and efficacious professional and community engagement. They enjoy an international reputation as leaders in their fields, with environmental sciences awarded the maximum rating (5 out of 5 – well above world standard) in the most recent Excellence in Research for Australia analysis. Our research strengths in environmental science and management, physical geography and environmental geoscience, and atmospheric sciences all received the maximum rating of 5. Additionally, Macquarie is ranked the number one institution in Australia in environmental sciences and ecology research (ESI, 2014).

As a higher degree research candidate at Macquarie, you'll be encouraged to take an interdisciplinary approach to addressing contemporary environmental questions, many of which intersect with other fields. Using this approach, your research will help find the answers to questions yet to be asked, and solve the big environmental problems that matter to business and society.



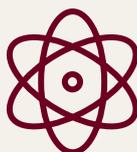
AREAS OF SPECIALISATION

- Climate change and impacts
- Earth surface process dynamics (hydrology, oceanography, geochemistry, Aeolian) in wetlands, soils, atmosphere, oceans and rivers
- Environmental chemistry (environmental quality and human health)
- Environmental economics
- Environmental health (environment–human interactions)
- Environmental management (rehabilitation, conservation, policy and law)
- Environmental technologies (remediation, clean energy technologies, and air and water pollution control)
- Geomorphology and landscape evolution (rivers and wetland, coastal, desert and polar environments)
- Natural hazards
- Quaternary environmental change (terrestrial, coastal and marine proxy records, and geochronology)
- Spatial information science (modelling and forecasting environmental change)



FACILITIES

- Climate science laboratory
- Drill rigs, field store
- Environmental quality laboratory
- Luminescence dating laboratory
- Sedimentology and soil analysis laboratory
- Thermal and environmental processing laboratory



RESEARCH HUBS

- ARIES: Australian Research Institute for Environment and Sustainability
- Climate Futures
- Energy and Contaminants Research Centre
- Macquarie University Marine Research Centre
- We also partner in the National Climate Change Adaptation Research Facility and the Sydney Institute of Marine Science

OUR RESEARCH PRIORITIES

We pursue excellence in a broad range of research areas. Our five interdisciplinary strategic research priorities – Healthy People, Resilient Societies, Prosperous Economies, Secure Planet and Innovative Technologies – respond to globally significant challenges and opportunities to improve the lives of millions. Together, these research priorities provide a focal point for research, with discoveries made under these priorities translating into real improvements in the lives of local, national and global communities.

JOINTLY SUPERVISED PHD PROGRAMS

Macquarie actively encourages cotutelles and joint degrees – shared supervision arrangements with universities whose research activity strongly aligns with ours. Under each model, you are enrolled at two universities with a principal supervisor at each and may be eligible for additional scholarship support.

mq.edu.au/cotutelle-and-joint-phd