Master of Environmental Science

by coursework or coursework and dissertation



Faculty of Science

The Master of Environmental Science with specialisations in:

- Environmental Management
- Land and Water Management
- Marine and Coastal Management
- Geographic Information Science and Environmental Management

Students nominate a specialisation on application.

Course description, features and facilities

Environmental issues are many and varied and their successful management requires a new generation of environmental professionals. An interdisciplinary approach to problem solving is essential in this field, requiring the integration of knowledge from biological and earth sciences with training in environmental planning and management.

The Master of Environmental Science will provide you with the background and skills to deal with issues such as land degradation and rehabilitation, air and water pollution, climate change and carbon trading, water resource management, coastal management, flora and fauna conservation, competition for land use, habitat destruction and deforestation, and energy and mineral depletion.

UWA is a leader in environmental science research and training and is supported by staff and activities from Geography, Environment and Soil Sciences, the Centre of Excellence in Natural Resource Management, Centre of Excellence in Coral Reef Science, the Kings Park and Botanic Gardens Biodiversity Conservation Centre, the Ecosystem Restoration Laboratory, the Aquatic Dynamics Laboratory and the Centre for Environmental Economics and Policy.



Specialisations

- Environmental Management has become an integral part of the activities of industry and governments. It is now a primary function and requirement closely tied to questions of economic development and environmental sustainability.
 It involves devising effective technological and policy measures for the protection and conservation of the environment, natural and cultural heritage, and natural resources.
- Land and Water Management provides students with advanced knowledge of how physical, chemical and biological processes within the environment are impacted upon by human uses, and focuses on devising management approaches to improve the health of land and water systems. Case studies are used to increase the awareness and management of issues such as soil erosion and land salinisation, surface and groundwater contamination, and mine-site rehabilitation.
- Marine and Coastal Management involves identifying solutions that balance human uses such as fishing, oil and gas, and coastal infrastructure developments with conservation goals. Coastal managers have a broad-based knowledge of marine and coastal systems and understand how the use of the environment by humans can be combined with the sustainable management of coasts, and nearshore environments.
- Geographic Information Science (GIS) and Environmental Management processing increasingly complex multi-dimensional spatial datasets is required for the management of both built and natural environments. GIS involves the acquisition, visualisation and analysis of geographical data, from ecological systems, landforms, soils, water, land use, economic activity and population demographics. When combined with environmental management, students are prepared to integrate our understanding of environmental processes with strategic planning approaches to resolve problems.

You will study the core units for the Master of Environmental Science:

- ENVT4402 Analysis for Natural Resource Management
- ENVT4404 Environmental Planning and Management
- ENVT4411 Geographic Information Systems Applications

Each specialisation has core units in addition to those listed above, with other units selected as options.

Visit handbooks.uwa.edu.au/courses/coursedetails?id=c166 for details

You may apply to replace the equivalent of half a year's units with a research project.

UWA is ranked 1st in Australia for Agriculture and Life Sciences!



About UWA

Located on the beautiful Swan River in Perth, Western Australia, UWA is recognised internationally as a leading university, ranked in the top 100 in the world in the highly respected Shanghai Jiao Tong University's Academic Ranking of World Universities. It is the only Western Australian university to belong to the Group of Eight – a coalition of the top research universities in Australia – and is one of only two Australian members of the Worldwide Universities Network. It is a science-focused university, renowned for excellence in teaching and research.

Our strengths

- Identifying solutions to environmental problems
- Adapting to climate change
- Mining and agricultural landscapes
- Environmental sensing and data analytics
- Integrating technical science into decision making
- Advanced Natural Resource
 Management systems
- Pristine coastline
- Diverse landscapes
- Biodiversity hotspot location
- Flexible course structure
- Connection with industry and government partners
- Designing management solutions to promote resilience

Why study Environmental Science at UWA?

UWA has a long history of multidisciplinary research into a wide diversity of environmental systems, with unique experience in identifying long-term economic and planning-based solutions built on rigorous understanding of environmental processes.

• Integration of environmental science with geography, planning, and conservation

- Access to a broad range of case studies and diverse environments to study
- Flexibility to focus on a specialisation that suits your interests
- Opportunities to undertake fieldwork in a range of terrestrial and marine environments
- Strong links with local industry and global research networks
- Research project opportunity with leading academics

Career opportunities

Environmental Science graduates may find employment in a range of areas including Commonwealth and state departments and agencies responsible for the environment, water, conservation, climate change policy, agriculture and food, and primary industries. Other employers are private sector firms working in the resources sector and non-government organisations.

Other employment opportunities/roles include:

- Environmental Officer roles
- Environmental Impact Assessment
- Environmental Regulatory bodies
- Environmental Science Consultancy for government
- Private consultancy
- Environmental Restoration
- Land Rehabilitation
- Marine and Coastal Management
- Complex decision making in Environmental Management
- Mining
- Research

Admission requirements

A relevant bachelor's degree, that aligns with one of the specialisations of this course, or an equivalent qualification as recognised by UWA. You must also demonstrate a minimum level of English Language Competence. See studyat.uwa.edu. au/postgraduate-coursework/ requirements/english

Key Information

While the standard timeframe for completion of this degree is two years (full time), if you have previously completed an undergraduate degree in a cognate (relevant) area it may be possible to complete within 1.5 to 2 years. Subject to academic performance, you may apply to replace the equivalent of half a year's units with a research project – an opportunity to develop your project management and research skills and work closely with an academic and research group in various disciplines.

- Intake periods: February and July each year
- Scholarships for international students:

visit: www.science.uwa.edu.au/ courses/scholarships

- **Domestic students:** This course qualifies for a Commonwealth Supported Place
- Visit the Future Students website for more information, including fees, refund policy and support services: studyat.uwa.edu.au/courses
- How to apply: visit studyat.uwa.edu.au/ applynow
- Course enquiries: postgrad-science@uwa.edu.au



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