

Graduate Certificate Integrated Water Management **Water Planning**

Part-time / distance



IWC GRADUATES RECEIVE A CO-BADGED DEGREE FROM FOUR LEADING AUSTRALIAN UNIVERSITIES:



Building on the successful model developed for the IWC Master of Integrated Water Management, the Graduate Certificate in Integrated Water Management with specialisation in Water Planning has been designed in response to the urgent need to provide a quality higher education program for water managers that is skill-based, interdisciplinary, experiential and relevant.

It is well recognised that water planners require a broad set of transdisciplinary skills to engage effectively with the multi-faceted, complex nature of contemporary water management challenges. Solving water-related problems, particularly in the Australian context, requires scientific expertise and skills for engaging with communities and the ability to integrate environmental, social and political considerations into planning practice.

Program features

The program is designed to accelerate career development and encourage dialogue across disciplines among water planners. By taking a transdisciplinary, whole-of-water-cycle approach, it builds the capacity of future water leaders for adopting innovative solutions to local, regional, national and international water planning issues.

The program is co-badged and co-taught by four leading Australian universities. A team of lecturers and industry experts in the field deliver the course modules and Problem-Based Learning Projects.

The program focuses on building skills such as critical thinking, problem solving, knowledge transfer and effective leadership. Students can build on the Graduate Certificate by continuing on to the Graduate Diploma and Master of Integrated Water Management.

Skills and knowledge

- Understand the principles and practice of integrated water management
- Understand the science behind aquatic ecosystem health, and how to incorporate this understanding into water resource planning and management
- Learn practical skills for better collaboration with communities, indigenous and cross-cultural engagement, conflict management, consensus building, and science communication
- Learn different methods used in environmental, social and risk assessment and how to apply them in real-life scenarios
- Gain a broad introduction to water resource economics and economic assessment methods relating to water management and planning
- Be able to provide detailed scientific and managerial input into the planning, design and operation of water resource projects
- Learn to apply best practice water planning in Australia

Relevant for professionals in:

- Natural resource management;
- Government agencies (state/local);
- Catchment management bodies;
- Water and river authorities;
- Utilities;
- Consultancies.

The program is also relevant to recent graduates seeking a career in the water sector.

Course structure

Modules address a range of issues relevant to practising Australian water managers and planners. Case studies from around Australia are used to address the impacts of climate change and equip students with the skills and tools necessary for the development and implementation of sustainable solutions.

A unique aspect of the course is the Problem-Based Learning Projects, in which students apply the knowledge learned in the classroom to complex and demanding real-world problems.



Program delivery

The part-time Graduate Certificate program runs for **one year** (two semesters) and students undertake two modules and one Problem-Based Learning Project per semester.

The next intake will be Semester 2, 2012. Each semester, students have an intensive session, supplemented with regular electronic classroom sessions.

Problem-Based Learning Projects (PBL)

The team and individual projects that students undertake are a unique feature of the program. In PBL 1, students assess and communicate the scientific basis of biophysical climate change impacts on a water resources situation. In PBL 2, students critically develop a community engagement and participation approach to addressing climate change impacts on water resources.

Co-badged degree from four leading universities

Students enrol at Griffith University and, upon graduation, receive a co-badged qualification from all four partner universities.



Admission requirements

A bachelors degree from a recognised tertiary institution. Students not holding a bachelors degree may apply for entry into the Graduate Certificate, and may be admitted at the Program Convenor's discretion, with demonstrated minimum five years relevant work experience.

Key dates

Applications close **15 June 2012**.

The program will start mid-July 2012 at Griffith University.

More information and to apply:

www.watercentre.org/education/water-planning

Scholarships (\$1,550)

Partial scholarships (\$1,550) are available in 2012. There is no separate application form for this scholarship.

The scholarship will automatically be granted to the first 10 students who enrol in the program in Semester 2, 2012.

www.watercentre.org/education/water-planning/scholarships

Contact us

T +61 7 3123 7766

E admin@watercentre.org

CRICOS 066899F

Modules description

7900ENV – Project Management

Lecturer: Dr Helen Johnson

This course trains students in the skills, tools and techniques necessary to manage a broad range of project activities. Students learn the principles of project management through each stage of the project cycle: from initial problem analysis, scoping and project design to the management of administrative, logistical and financial aspects of project implementation; social, environmental and gender impact issues; data analysis; ongoing monitoring and evaluation; and grievance procedures. Focusing on project management for the water sector, the course emphasises participatory project management and frameworks for cross-sectoral collaboration.

7920ENV – Catchment and Aquatic Ecosystem Health

Lecturer: Dr Wade Hadwen

This is a relatively new field that brings together biophysical understanding of how natural systems function with societal goals and human values. Many streams, rivers and floodplains are in a degraded state and millions of dollars are spent annually on their restoration. This core course provides biophysical and ecological information to guide sustainable management and restoration of riparian lands and associated riverine systems. Topics include the role of the riparian zone in abiotic and biotic in-stream processes and river channel and riparian restoration. It also covers the development and validation of cost-effective techniques for the ecological assessment of river health including indicators which focus on organisation (biodiversity, food web structure), vigour (rates of production, biogeochemical cycling) and resilience (ability to recover from disturbance).

7904ENV – Collaborative Planning

Lecturer: Dr Dana Kelly


Water planning requires consultation with communities and stakeholders. Planners agree that community input and participation should influence the development of a water resource plan or strategy and often find that they need professional development in this area. This course provides training in key areas including methods for better collaboration with communities, indigenous and cross-cultural engagement, conflict management, consensus building, and science communication. Lessons from real-life case-studies in water planning are shared by a range of experts in the field, with time for in-depth workshops.

7903ENV – Water Planning and Economics

Lecturer: Prof Poh-Ling Tan

This course introduces students to a range of assessments needed to fulfil the goals, objectives and principles of water planning in the 21st century. It gives a broad introduction to water resource economics to enable students to gain familiarity with economic concepts pertinent to water management and planning. Students are introduced to economic and social impact analyses and risk assessment including adaptation for climate change. As one of the outcomes of plans is security for consumptive water users, this is discussed in the context of Australia and contrasted with developing countries. Environmental allocations are also discussed. Thus students are encouraged to develop awareness of the need to integrate economic, social, legal and environmental perspectives in planning against a background of uncertainty and change.





This brochure was compiled in 2012.
Information in this brochure was accurate at
the time of printing. Please note that details
are subject to change without notice.

International WaterCentre Pty Ltd

ABN 58 115 590 255

Level 16, 333 Ann St, Brisbane Q 4000
PO Box 10907, Adelaide St, Brisbane Q 4000

Tel +61 7 3123 7766 Fax +61 7 3103 4574

Email admin@watercentre.org

www.watercentre.org