

Groundwater Hydrology

Postgraduate Awards in Groundwater Hydrology

- Graduate Certificate in Science (Groundwater Hydrology)
- Graduate Diploma in Science (Groundwater Hydrology)
- Master of Science (Groundwater Hydrology)

For thousands of years, groundwater has been exploited as a water resource in countries across the globe. Yet we are only now starting to gain an in-depth understanding, based on scientific investigation, of groundwater science, management and policy. As water issues abound in the 21st century, expertise in groundwater hydrology is now in increasing demand.

Fast Facts

Course Level: Postgraduate

Course Length: **Graduate Certificate** - 0.5 years full time (18 units)

Graduate Diploma - 1 year full time (36 units)

Master - 2 years full time (72 units)

Part time study options are available.

Location: Taught on-campus at Flinders.

Available To: Australian (*Commonwealth Supported*) and international students.

Entry Requirements: An undergraduate degree in any relevant discipline of science or engineering, from an approved tertiary institution.

Course Program Details: Program of Study for:
[Graduate Certificate](#)
[Graduate Diploma](#)
[Master](#)



About the Course

Why study Groundwater Hydrology?

Groundwater is not only a water resource on planet earth, it also plays a vital role in many environmental phenomena.

Groundwater hydrology is the study of the occurrence, distribution, movement and quality (both chemical and biological) of water in subsurface geological systems. It is paramount in sustaining water supplies or for drinking, agriculture, industry and other uses.

We rely on the knowledge gained by groundwater hydrology to fight against dryland salinity, prevent or remediate contamination, and maintain biodiversity and ecosystems.

Surveys have ranked Flinders University highly among Australian universities for student satisfaction, teaching quality, teaching and research links, employer satisfaction with students and research spending and publication rate. The student population is about 15,600, with international students making up about 12%. The campus boasts halls of residence and off-campus, affordable accommodation is available nearby. Regular and frequent public transport services the campus on several routes.

Affordable Adelaide, capital of the state of South Australia, is a city of about 1 million people with an eye to the future – a future you can be part of, for the time of your course or the rest of your life. It has the lowest cost of living of all major Australian cities. The state government has a focus on developing, in collaboration with private enterprise, a vibrant, innovative culture that looks to a bright future – quality of life in a sustainable environment.

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Entry requirements

All Applicants

For any of the three awards, applicants normally must hold an approved degree or equivalent qualification in any relevant discipline of science or engineering from an approved tertiary institution.

Australian Students

Australian		of	students		should		contact:
Faculty				Science		and	Engineering
Flinders	University,		GPO	Box	2100,	Adelaide	SA 5001
Tel:	(08) 8201 2515	or	1800 803 131			(freecall within Australia)	3399
Fax:		(08)			8201		
Email:	soak.up.science@flinders.edu.au						

International Students

CRICOS Provider Code: **00114A**

See the [Why choose Flinders](#) section for the following information about this and other Flinders courses:

- Tuition fees
- Course entry requirements
- English language requirements
- Australian visa and health cover requirements

For	further	information	about	studying	in	Australia:
The			International			Office
Flinders	University,	GPO	Box	2100,	Adelaide	SA 5001
Tel	(+ 618)				8201	2727
Fax	(+ 618)				8201	3177

[Ask Flinders](#) - International enquiry form

Credit Transfer

Students who have completed the Graduate Certificate or Graduate Diploma (or other qualifications deemed equivalent) receive credit when progressing to the Graduate Diploma or Masters.

An [Application for Credit](#) form and relevant policies are available on the web.

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Course Fees

These courses are offered on a fee-paying basis. See the appropriate fee schedule for [Australian students](#) and [International Students](#).

[Commonwealth supported places](#) may be available depending on a number of factors. Contact the relevant faculty office for further information.

Australian citizens, and those holding an Australian permanent humanitarian visa who meet eligibility criteria, are eligible to defer their fees through the Higher Education Loan Program (FEE-HELP). Contact Student Finance Services on (08) 8201 3143 for details.

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Further Information

Flinders Web Resources

The following are additional links within the University of Flinders website where you will find information on costs, financial assistance, and other courses offered by the University.

- [International students](#)
- [Australian students](#) - Undergraduate & Postgraduate
- [Other Flinders Courses](#)

Graduate Diploma in Science (Groundwater Hydrology)

(GradDipSc(GwHyd))

Program of Study

The program of study for this course changed from 2008. An information session and/or counselling session will be held for all continuing students.

INTRODUCTION

The Graduate Diploma in Science (Groundwater Hydrology) is a 36-unit program offered by the Faculty of Science and Engineering on a Commonwealth Supported basis. The course articulates with the Graduate Certificate in Science (Groundwater Hydrology) and the Master of Science (Groundwater Hydrology), and the sequentially developed topics allow progression through the three awards. Students who have completed the graduate certificate are awarded credit for related topics towards the graduate diploma.

COURSE AIMS

The course aims to facilitate skills transfer from another relevant area of engineering or science to the study of groundwater hydrology. Graduates from this award will have:

- an understanding of the basic scientific concepts that underpin the occurrence, distribution, movement and quality of groundwater;
 - an understanding of the current pressing groundwater management issues and the technologies employed to deal with them;
 - a basic training in a range of commonly employed field, laboratory and computational methods used in the study of groundwater hydrology; and
 - the necessary communication, problem-based and critical thinking skills that will promote lifelong learning in their future careers.
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COURSE RULE

ADMISSION REQUIREMENTS

Applicants who do not hold the Graduate Certificate in Science (Groundwater Hydrology) must normally hold an approved degree or equivalent qualification in any relevant discipline of science and engineering, from an approved tertiary institution. However, the Faculty Board may, under certain circumstances and subject to specific conditions, admit others who can show evidence of fitness for candidature.

PROGRAM OF STUDY [November, 2007]

To qualify for the Graduate Diploma in Science (Groundwater Hydrology), a student must complete 36 units with a grade of P or NGP or better in each topic, according to the following program of study.

Not all topics are necessarily available in a given year.

Students must select 12 units from the following:

CPES8004

CGS National Groundwater School

<u>CPES8151</u>	Groundwater and Soil Hydrology GE	6
<u>CPES8022</u>	Earth Sciences Field Camp 1 GE ^{^^} , OR	6
<u>CPES8023</u>	Earth Sciences Field Camp 2 GE [^]	6

Students must select 24 units from the following

<u>CPES8004</u>	CGS National Groundwater School	6
<u>CPES8005</u>	Environmental Research Methods	6
<u>CPES8010</u>	Geological Processes GE [^] , OR	6
<u>CPES8013</u>	Sedimentary Processes GE ^{^^}	6
<u>CPES8022</u>	Earth Sciences Field Camp 1 GE ^{^^}	6
<u>CPES8023</u>	Earth Sciences Field Camp 2 GE [^]	6
<u>CPES8110</u>	Introduction to Earth Sciences	6
<u>CPES8112</u>	Research and Professional Practice in Groundwater Hydrology	6
<u>CPES8114</u>	Special Topic in Groundwater Hydrology	6
<u>CPES8131</u>	Surface Water Hydrology GE	6
<u>CPES8151</u>	Groundwater and Soil Hydrology GE	6
<u>CPES8152</u>	Global Climate Change and Natural Hazards	6
<u>CPES8172</u>	Earth Fluid Dynamics and Modelling GE	6
<u>CPES8252</u>	Hydrochemistry GE	6
<u>GEOG3013</u>	Geographical Information Systems	6

Some topics are not available every year.