



Course Outline (Higher Education)

School:	School of Science, Psychology and Sport
Course Title:	WETLANDS AND WATER RESOURCES
Course ID:	SCENV3400
Credit Points:	15.00
Prerequisite(s):	SCCHM1001 AND SCENV1001 OR SCSUS1500
Co-requisite(s):	Nil
Exclusion(s):	SCENV2400
ASCED:	019999

Description of the Course:

This course covers knowledge and skills applicable to an understanding of the equitable distribution of water resources and the challenges of managing water for both human and environmental systems. Content includes: wetland form and function; impacts of a changing climate; monitoring water quality; wetland ecology; wetland chemistry; and social, cultural, political and legal dimensions to water resource management.

Grade Scheme: Graded (HD, D, C, P, MF, F, XF)

Work Experience:

No work experience: Student is not undertaking work experience in industry.

Placement Component: No

Supplementary Assessment: Yes

Where supplementary assessment is available a student must have failed overall in the course but gained a final mark of 45 per cent or above and submitted all major assessment tasks.

Program Level:

Level of course in Program	AQF Level of Program					
	5	6	7	8	9	10
Introductory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intermediate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advanced	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Learning Outcomes:**Knowledge:**

- K1.** Investigate the hydrological cycle and the variable distribution of global water resources
- K2.** Identify the human demands on water resources and the impact of resource use on aquatic ecosystems
- K3.** Develop a broad understanding of the social, cultural, political and economic influences on water resource management
- K4.** Interpret the role of a changing climate on future water security

Skills:

- S1.** Obtain, evaluate and interpret water quality data
- S2.** Demonstrate the ability to make assessments of water quality and wetland ecosystem health using physical, chemical and biological methods
- S3.** Synthesis and interpretation of literature on wetland condition

Application of knowledge and skills:

- A1.** Effectively communicate scientific concepts around water quality and management to a lay audience
- A2.** Demonstrate the ability to integrate literature, field and laboratory material into a technical report
- A3.** Make recommendations on wetland rehabilitation through the development of a tender

Course Content:

This course provides an in depth investigation of climate patterns, water catchments, and the variability of the nature of wetlands and the availability and quality of water resources over space and time. These fundamental principles will be employed to examine contemporary issues in water resources such as environmental and cultural flows, wetland reserves, water allocations and the impact of a changing climate, drawing on examples from Australia and elsewhere. The course will also include practical field and laboratory experience in wetland assessment.

Topics may include:

- Wetland form and function
- Wetland ecology
- Wetland chemistry
- Water quality and bioassessment techniques
- Changes and impacts to water catchments

Values:

- V1.** Appreciate the limitation to the availability of water over space and time
- V2.** Recognise the contested nature of water resource development
- V3.** Gain an understanding of environmental, cultural, social and economic values of water

Graduate Attributes

The Federation University FedUni graduate attributes (GA) are entrenched in the [Higher Education Graduate Attributes Policy](#) (LT1228). FedUni graduates develop these graduate attributes through their engagement in explicit learning and teaching and assessment tasks that are embedded in all FedUni programs. Graduate attribute attainment typically follows an incremental development process mapped through program progression. **One or more graduate attributes must be evident in the specified learning outcomes and assessment for each FedUni course, and all attributes must be directly assessed in each**

program

Graduate attribute and descriptor		Development and acquisition of GAs in the course	
		Learning Outcomes (KSA)	Assessment task (AT#)
GA 1 Thinkers	Our graduates are curious, reflective and critical. Able to analyse the world in a way that generates valued insights, they are change makers seeking and creating new solutions.	K1, K2, K3, K4, S1, S2, S3, A2, A3	AT1, AT2, AT3, AT4
GA 2 Innovators	Our graduates have ideas and are able to realise their dreams. They think and act creatively to achieve and inspire positive change.	S3, A3	AT3
GA 3 Citizens	Our graduates engage in socially and culturally appropriate ways to advance individual, community and global well-being. They are socially and environmentally aware, acting ethically, equitably and compassionately.	K2, K3, A1, A2, A3	AT3, AT4
GA 4 Communicators	Our graduates create, exchange, impart and convey information, ideas, and concepts effectively. They are respectful, inclusive and empathetic towards their audience, and express thoughts, feelings and information in ways that help others to understand.	K4, S2, S3, A1, A2, A3	AT1, AT2, AT3
GA 5 Leaders	Our graduates display and promote positive behaviours, and aspire to make a difference. They act with integrity, are receptive to alternatives and foster sustainable and resilient practices.	K2, K3, K4, S3, A1, A3	AT3, AT4

Learning Task and Assessment:

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
K1, K2, K3, K4, S3, A1	Catchment Presentation	Oral Presentation	10-30%
S1, S2	Laboratory Report	Report	10-30%
K2, K3, K4, S3, A1, A2, A3	Wetland Tender	Report	20-40%
K1, K2, K3, K4	Online Test	Test	20-40%

Adopted Reference Style:

Australian Harvard

 Refer to the [library website](#) for more information

 Fed Cite - [referencing tool](#)