

Academic Promotion Discipline Statement

Discipline area:	Environmental Sciences
Discipline:	Climate Change Impacts and Adaption, Ecological Applications, Environmental Biotechnology, Environmental Management, Pollution and Contamination
School:	Agricultural, Environmental and Veterinary Sciences

Discipline Overview

Environmental science is an interdisciplinary academic field that draws on ecology, geology, meteorology, biology, chemistry, engineering, and physics to study environmental problems and human impacts on the environment. This discipline focusses on complex environmental problems such as land degradation, loss of biodiversity, climate change and poor water management. It is about being an advocate for environmental sustainability, preservation and restoration.

Environmental science is a discipline with both applied and theoretical aspects and has been influential in informing the policies of governments around the world. Though the study of the environment is as old as any human endeavour, the modern field of environmental science developed from the growing public awareness and concern about environmental problems in the 1960s and '70s.

The typical career path for an academic in this discipline after completion of a PhD is appointment to an academic position in a research or teaching/research institution.

Gender Profile

Profession/Industry Source: Job Outlook (2018)	41% female / 59% male (Environmental Scientist)
Higher Education Sector	Data not currently available
Charles Sturt University	50% female / 50% male

Discipline Context and Expectations

INDUSTRY ACCREDITATION	This discipline is not subject to industry accreditation requirements.
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DISCIPLINE PEDAGOGIES	The discipline follows a traditional approach to teaching combined with practical and field-based learning experiences.
STUDENT PROFILE	Environmental Science students are largely online and engage in practical and field-based elements through residential schools. Students comprise both school leavers and mature age. Gender profile of the cohort is relatively balanced.
STUDENT FEEDBACK/PERFORMANCE	There are no unique student experience attributes in this discipline.
RESEARCH APPROACH	Research is primarily collaborative, typically undertaken in small groups. It can be interdisciplinary and cross-institutional with other government agencies. At Charles Sturt, research in this discipline is applied in nature and may involve both qualitative and quantitative based approaches. There is opportunity in this discipline to take the lead on research projects.
PUBLICATION	<p>Publication in peer reviewed Q1 and Q2 journals is the norm for this discipline, with books and book chapters being less common.</p> <p>Peer reviewed journal articles have standing from an academic perspective, however from an industry perspective the focus is on the impact on applied practice. Therefore, publication through mainstream media and industry are highly regarded as a means to influencing/impacting community and industry practice.</p> <p>Word count for publications and journal articles is variable, with the primary focus being quality. The expected average output in this area is generally one to two quality journal articles annually depending on the academic's level.</p> <p>Authorship convention in this discipline dictates the first author is the person who writes the paper while last author is usually the senior researcher. There is no specific order between first and last authors.</p> <p>Single authorship is less prevalent.</p>
CONFERENCES	There is a strong focus on industry conferences and papers in this discipline. Conferences are highly competitive; but can also be by invitation only (particularly when linked to funding-institution conferences). It is normal for academics in this discipline to attend full paper competitive conferences. Presentation at such conferences is highly regarded and can precede article submission in peer reviewed journals.
GRANTS	<p>Traditional Australian Research Council (ARC) funding is highly competitive and rare in this discipline. Funding is normally industry-based or through government and environmental bodies.</p> <p>Available funding can range from \$10,000 to multimillion dollar grants. Funding is highly competitive against other government research agencies and other higher education institutions and industry groups. Securing and leading large funding projects is very highly regarded.</p>
HDR SUPERVISION	The expectation in this discipline is for academics to be supervising HDR students. Supervision may be discipline-specific or inter-



	disciplinary in nature. There is a range of primary and co-supervision depending on the research being undertaken.
RECOGNITION	<i>Availability and Standing of industry awards and fellowships</i>
EXTERNAL ENGAGEMENT	External engagement is important. Building industry partnerships and relationships is integral to the discipline. Active engagement in broader community discussions, think-tanks and media (print, radio, The conversation, and more conventional blogging/vlogging) would be expected of those at higher levels C-E. Maintaining a strong external profile is essential to bring tangible benefits to the individual and CSU's professional standing. Key hallmarks of successful external engagement include public lectures, paid consultancies, appointment to advisory panels, editorial duties on high impact journals or development of industry-focused short courses.
PROFESSIONAL ORGANISATION / SOCIETY	There is no mandatory professional registration requirement in this discipline. However, there would be a fundamental expectation that academics are active members of at least one professional organisation within their discipline and actively participate in the development of organisational direction. This could be through policy development, attendance at annual conferences or as voluntary members of the executive. Non-engagement with professional organisations risks alienating staff from professional networks and conventional concepts and thinking.

Prepared by	Academic Promotion Team	
Authorisation	Name	Approval Date
Discipline Adviser	Associate Professor Benjamin Wilson, Lee Baumgartner	2021
Head of School School	Associate Professor Robert Woodgate Agricultural, Environmental and Veterinary Sciences	2021
Deputy Vice-Chancellor (Research)	Professor Mark Evans	19 April 2022

