

Course Outline

School / Portfolio:	Faculty of Science and Technology
Course Title:	ECOLOGICAL SYSTEMS AND THE ENVIRONMENT
Course ID:	ENVGC1022
Credit Points:	15
Prerequisite(s):	Nil
Co-requisite(s):	Nil
Exclusion(s):	Nil
ASCED Code:	010905

Program Level:

	AQF Level of Program					
	5	6	7	8	9	10
Level						
Introductory			✓			
Intermediate						
Advanced						

Learning Outcomes:

Knowledge:

- K1.** Describe living systems including diversity, classification and importance.
- K2.** Explore ecosystem function and describe energy flow, relationships and resource use.
- K3.** Explain how the physical environment influences ecosystems.
- K4.** Describe the interactions between humans and ecosystems.
- K5.** Recognise actions that humanity can take, leading towards a more sustainable future.

Skills:

- S1.** Develop skills in communication of scientific ideas and information.
- S2.** Develop skills in the identification of biota.
- S3.** Demonstrate the ability to critically analyse peer reviewed research articles.

Application of knowledge and skills:

- A1.** Demonstrate a conceptual understanding of global and Australian biodiversity.
- A2.** Demonstrate competence in effective communication, in a variety of modes including oral and written.

Course Content:

Topics may include:

- Biodiversity at various ecological levels and its significance.
- Significance of biodiversity on a global scale.
- The role of energy in ecosystems.

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ENVGC1022 ECOLOGICAL SYSTEMS AND THE ENVIRONMENT

- Fundamental geography, including plate tectonic, hydrology and climatology.
- Biomes and their relationship to geography.
- Australian fauna and flora.
- Human impacts on the natural world.
- Food resources and population growth.
- Sustainable future.

Values and Graduate Attributes:

Values:

- V1. Appreciate the importance of biological diversity and ecosystem organisation.
- V2. Value the uniqueness and complexity of Australian ecosystems and the processes that formed them.
- V3. Recognise the impact that humans have on ecosystems.
- V4. Appreciate the importance of environmental education and communication.

Graduate Attributes:

Attribute	Brief Description	Focus
Continuous Learning	Ability to access and critically analyse a range of resources, including the media and peer reviewed research papers.	Medium
Self Reliance	Seek resources and manage time effectively, in both individual activities and contributions to group work.	Medium
Engaged Citizenship	Awareness of environmental conservation as a first world privilege.	Medium
Social Responsibility	Through awareness of the human impact on ecosystems, begin to evaluate their own contribution to these impacts.	Medium

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Task	Assessment Type	Weighting
K1, K2, K3, K4, K5, S1, S2, A1, A2	Investigate Biodiversity Hotspots from a series of web sites and activities.	Written assignment.	5-10%
K1, K2, K3, K4, K5, S1, S2, A1, A2	Find and collect examples of Australia biodiversity and collate in a comprehensive report.	Written report.	15-20%
S1, S2, S3, A2	A group assignment were students present a research article of their choice.	Oral presentation.	10-15%
K1, K2, K3, K4, K5, K6	Weekly quiz.	On-line multiple choice quiz.	5-10%
K1, K2, K3, K4, K5, K6	Examination (2 hours).	Examination.	50-60%

Adopted Reference Style:

Australian