

Course Outline (Higher Education)

School:	School of Science, Psychology and Sport
Course Title:	CLIMATE & ENVIRONMENTAL ISSUES IN A CHANGING WORLD
Course ID:	SCENV3500
Credit Points:	15.00
Prerequisite(s):	SCENV1001 or SCSUS1500
Co-requisite(s):	Nil
Exclusion(s):	SCENV3501
ASCED:	019999

Description of the Course:

Our climate is now changing in response to an array of anthropogenic impacts. An understanding of the rate, mode and scale of these changes are now of vital importance to society and the environment. In this course we look at historical (ie measured), current and predicted changes linking proposed causes and effects, and also adaptation and mitigation options available to tackle undesirable present and future changes. Wider impacts of environmental change and policy framework at a local and global level to tackle present and future climate scenarios are considered. We investigate national and international case studies of historical and contemporary effects of environmental change on the biophysical environment, including flora and fauna, extreme events, food security and society, new energy futures and climate ready initiatives. This course will help prepare students for the dynamic world of work they are about to enter.

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	■	■	■	■	■	■
Intermediate	■	■	■	■	■	■
Advanced	■	■	✓	■	■	■

Learning Outcomes:

Knowledge:

- K1.** Demonstrate an in-depth knowledge of historical and contemporary natural and human induced physiochemical changes on ecosystems
- K2.** Identify contemporary and historical anthropogenic perturbations and impacts nationally and globally over a long-time frame until present
- K3.** Evaluate the main drivers of global climate change, the responses of natural systems to climate drivers, adaptations, and mitigation options available
- K4.** Investigate options available to tackle undesirable present and future changes, and policy framework at local and global level
- K5.** Discuss contemporary issues of the impacts of change on biophysical environment using both national and international examples

Skills:

- S1.** Source, read and interpret complex climate and environmental change related literature
- S2.** Identify and analyze the scientific, political, and social information that is relevant to climate change associated environmental issues
- S3.** Develop scientific reports related to the impacts of environmental change on biophysical environment
- S4.** Integrate field and site visit data into a technical report and make a presentation

Application of knowledge and skills:

- A1.** Analyse written material, synthesize evidence, write a logical essay and develop a digital poster
- A2.** Express opinion and communicate complex scientific ideas about climate and environmental issues in a clear and convincing manner
- A3.** Evaluate the impacts of climate change on environment and society, and appreciate the value of sustainability initiatives

Course Content:

The first half of this course is designed to provide a comprehensive overview of the complexity of environmental change by taking a journey through history, assessing the impacts of anthropogenic influences, impacts of climate change, adaptations, and mitigation measures. In the second half, a wide range of emerging issues are covered as case study driven study topics under four themes: Flora and Fauna Responses, Extreme Events, Impacts on Food Security and Society, New Energy Futures and Climate Ready Initiatives

Topics may include:

- Nature of Change
- Human History, Indigenous and Post-European Circumstances Related Changes
- Climate Protocols, Agreements & Assessments
- Adaptations and Mitigation Measures

- Case Study Driven Study Topics
 - Flora and Fauna Responses
 - Extreme Events
 - Impacts on Food Security and Society
 - New Energy Futures and Climate Ready Initiatives

Values:

- V1.** Recognise scientists capacity to reconstruct change over long time frames and predict for the future changes
- V2.** Appreciate natural climate change thereby placing future change in context
- V3.** Recognise the capacity of climate adaptations and mitigation measures available
- V4.** Appreciate the value of sustainability and climate ready initiatives

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, K3, K4, K5, S1, S2, S3, A1, A2	AT1, AT2, AT3
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.	K3, K4, S3, S4, A1, A2, A3	AT1, AT2, 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, K4, K5, S2, A3, A2	AT1, AT2, AT3
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.	K3, K5, S1, S3, S4, A1, A3	AT1, AT2, A3
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.	K3, K4, K5, A2, A3	AT2, AT3

Learning Task and Assessment:

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
K1-4, S1-2, A1-2	Environmental Policies & Action Plans to Tackle Present and Future Changes	Digital Poster	20-30%
K1, K3-4, K5, S2-4, A1-3	Written and Oral Presentation of Case Study Driven Study Topics: Impacts of Environmental Change	Report and Oral Presentation	30-40%
K1-5, S1-2, S4, A2-3	Review of Learning and Skills Practice on Different Themes Related to Environmental Issues	End of Semester Exam	30-40%

Adopted Reference Style:

Australian Harvard

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

Fed Cite - [referencing tool](#)