

Unit Outline (Higher Education)

Institute / School: Institute of Innovation, Science & Sustainability

Unit Title: Field-Based Investigation

Unit ID: SCENV2500

Credit Points: 15.00

Prerequisite(s): (SCENV1002 or SCENV1502)

Co-requisite(s): Nil

Exclusion(s): Nil

ASCED: 050999

Description of the Unit:

The design and implementation of appropriate techniques and methods in the field is a fundamental skill in environmental and conservation science. This unit provides students the opportunity to develop the range of field-based skills and experience that will complement their learning in environmental and conservation science. A major component of this unit is a one-week field trip with students engaged in environmental data collection and surveys and assessments of plants, animals and other organisms.

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

Work Experience:

No work experience

Placement Component: No

Supplementary Assessment: Yes

Where supplementary assessment is available a student must have failed overall in the Unit but gained a final mark of 45 per cent or above, has completed all major assessment tasks (including all sub-components where a task has multiple parts) as specified in the Unit Description and is not eligible for any other form of supplementary assessment.

Course Level:

Level of Unit in Course	AQF Level of Course					
	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"/>
Advanced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Learning Outcomes:

Knowledge:

- K1.** Describe appropriate procedures, regulations, planning processes and ethical considerations that are necessary in conducting field-based investigations.
- K2.** Evaluate the role and application of field-based investigations to progress understanding of environmental and conservation science.
- K3.** Develop broad knowledge of the techniques and methods used to collect environmental data.
- K4.** Develop broad knowledge of the techniques and methods used to survey plants, animals and other organisms.

Skills:

- S1.** Plan and develop appropriate approaches to implementing field-based studies in environmental and conservation science.
- S2.** Undertake field-based exercises to collect data on environment, plants, animals and other organisms.
- S3.** Develop field-based skills that enable assessment of environmental attributes, and effective survey of plants, animals and other organisms.
- S4.** Collate and analyse field data in the context of environmental and conservation science.

Application of knowledge and skills:

- A1.** Practice appropriate techniques and methods in the field to assess environments, plants, animals and other organisms.
- A2.** Conduct field-based studies to investigate issues in environmental and conservation science.
- A3.** Communicate the scientific outcomes of field-based studies to a diverse audience.

Unit Content:

This unit provides students with a consolidated field-based learning experience to develop skills in the collection of field-based environment data.

- Regulations relevant to collecting field data.
- Preparing for fieldwork.
- Safe field-based practices.
- Collection of environmental data.
- Surveys for plant, animals and other organisms.
- Designing field-based experiments.
- Collating and analysing field-based data.
- Presenting the outcomes of field-based assessments.

FEDTASKS

Federation University Federation recognises that students require key transferable employability skills to

prepare them for their future workplace and society. FEDTASKS (**T**ransferable **A**tttributes **S**kills and **K**nowledge) provide a targeted focus on five key transferable Attributes, Skills, and Knowledge that are embedded within curriculum, developed gradually towards successful measures and interlinked with cross-discipline and Co-operative Learning opportunities. *One or more FEDTASK, transferable Attributes, Skills or Knowledge must be evident in the specified learning outcomes and assessment for each FedUni Unit, and all must be directly assessed in each Course.*

FEDTASK attribute and descriptor		Development and acquisition of FEDTASKS in the Unit	
		Learning Outcomes (KSA)	Assessment task (AT#)
FEDTASK 1 Interpersonal	Students will demonstrate the ability to effectively communicate, inter-act and work with others both individually and in groups. Students will be required to display skills in-person and/or online in: <ul style="list-style-type: none"> Using effective verbal and non-verbal communication Listening for meaning and influencing via active listening Showing empathy for others Negotiating and demonstrating conflict resolution skills Working respectfully in cross-cultural and diverse teams. 	Not applicable	Not applicable
FEDTASK 2 Leadership	Students will demonstrate the ability to apply professional skills and behaviours in leading others. Students will be required to display skills in: <ul style="list-style-type: none"> Creating a collegial environment Showing self-awareness and the ability to self-reflect Inspiring and convincing others Making informed decisions Displaying initiative 	Not applicable	Not applicable
FEDTASK 3 Critical Thinking and Creativity	Students will demonstrate an ability to work in complexity and ambiguity using the imagination to create new ideas. Students will be required to display skills in: <ul style="list-style-type: none"> Reflecting critically Evaluating ideas, concepts and information Considering alternative perspectives to refine ideas Challenging conventional thinking to clarify concepts Forming creative solutions in problem solving. 	Not applicable	Not applicable
FEDTASK 4 Digital Literacy	Students will demonstrate the ability to work fluently across a range of tools, platforms and applications to achieve a range of tasks. Students will be required to display skills in: <ul style="list-style-type: none"> Finding, evaluating, managing, curating, organising and sharing digital information Collating, managing, accessing and using digital data securely Receiving and responding to messages in a range of digital media Contributing actively to digital teams and working groups Participating in and benefiting from digital learning opportunities. 	Not applicable	Not applicable

FEDTASK attribute and descriptor		Development and acquisition of FEDTASKS in the Unit	
		Learning Outcomes (KSA)	Assessment task (AT#)
FEDTASK 5 Sustainable and Ethical Mindset	Students will demonstrate the ability to consider and assess the consequences and impact of ideas and actions in enacting ethical and sustainable decisions. Students will be required to display skills in: <ul style="list-style-type: none"> • Making informed judgments that consider the impact of devising solutions in global economic environmental and societal contexts • Committing to social responsibility as a professional and a citizen • Evaluating ethical, socially responsible and/or sustainable challenges and generating and articulating responses • Embracing lifelong, life-wide and life-deep learning to be open to diverse others • Implementing required actions to foster sustainability in their professional and personal life. 	Not applicable	Not applicable

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1, K2, S1	Field work design and planning. Complete an online quiz task that explores the procedures, regulations and planning that must be considered in field-based investigations.	Quiz	10 - 20%
K3, K4, S3, S4, A1, A2	Data collation and analysis. Produce a collated data set from field-based assessments that has been curated, summarised and presented in appropriate tables and figures and interpret the key outcomes.	Report	20 - 40%
S2, S3, A1	Evaluation of field-based work. Assessment of students capacity to competently carryout field-based studies.	Self and peer review	10 - 20%
K2, K3, K4, S4, A2, A3	Research communication. Produce a piece of scientific communication that clearly and appropriately communicates the outcomes of the field-based data collection to a diverse audience.	Research communication piece	20 - 40%

Adopted Reference Style:

APA ()

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

Fed Cite - [referencing tool](#)