

Unit Outline (Higher Education)

Institute / School: Institute of Innovation, Science & Sustainability

Unit Title: Australian Flora

Unit ID: SCENV2101

Credit Points: 15.00

Prerequisite(s): (SCBIO1001 or SCENV1001 or SCENV1002)

Co-requisite(s): Nil

Exclusion(s): (ENVGC2712)

ASCED: 050901

Description of the Unit:

This unit addresses essential characteristics of the Australian flora and plant communities. The unit includes an introduction to plant ecology and plant physiology, with a focus on Australian examples, that will give students a functional understanding of the processes influencing plant communities, and the problems they face in the modern world. Students will develop skills in identifying and classifying plants. The unit aims to get students `thinking like a plant`, giving them a fresh perspective on Australia`s unique flora, and the challenges in managing plant populations and communities.

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.** Define and describe the major Australian vegetation communities, and the plant families and adaptations which characterise these communities.
- K2.** Apply the terminology used to describe the tissues, morphological structures and reproduction strategies of the plant kingdom.
- K3.** Develop broad knowledge of the ecological interactions of plants that influence their function and persistence in the landscape.
- K4.** Describe the origins of Australian flora and the major contemporary environmental factors influencing it.
- K5.** Describe and discuss the threats facing Australian plant communities.

Skills:

- S1.** Develop skills in plant identification of the Australian flora.
- S2.** Prepare plant material for dissection, and be able to interpret those sections.
- S3.** Describe the morphological features of plants, and relate these to plant function.
- S4.** Distinguish and characterise significant families and other taxa of Australian angiosperms.

Application of knowledge and skills:

- A1.** Apply knowledge of botanical keys to identify Australian native and introduced plants.
- A2.** Apply knowledge of ecological interactions to develop appropriate natural resource management plans in urban areas, native vegetation and modified landscapes.
- A3.** Design and implement vegetation surveys that are appropriate for their intended purpose.

Unit Content:

The unit content can be classified into three main areas of investigation: (1) Some essential plant biology and physiology, (2) the classification and phylogeny of the Australian flora, (3) the ecology of Australian plant populations and communities.

Topics may include:

1. Introduction to the Australian flora and its evolution.
2. Botanical terminology.
3. Ferns and fern allies; Gymnosperms.
4. Introduction to Angiosperms; important families in the Australian flora.
5. Monocot families.
6. Photosynthesis and its ecological consequences.
7. Pollination ecology.
8. Seed ecology.
9. Plants and fire.
10. Plant life history strategies.
11. Grazing ecology; plant defences.
12. Plant biogeography.

13. Threats to Australian plant communities.

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, K3, K4, K5	Quizzes, including early intervention task	Online Quizzes	20-30%
K2, K3, S1, S2, S3, S4, A1	Herbarium assignment	Submitted plant collection	15-25%
K2, S1, S2, S3, S4, A1, A2, A3	Practical class assessments and participation, including field trip.	Assessments include in-class submissions, on-line quizzes, and completion of pre-practical tasks.	15-30%
K1, K2, K3, K4, K5, S1, S4	Final test	Online Test	15-25%

Adopted Reference Style:

APA ()

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

Fed Cite - [referencing tool](#)