



Course Outline (Higher Education)

School:	School of Science, Psychology and Sport
Course Title:	AUSTRALIAN FLORA
Course ID:	SCENV2101
Credit Points:	15.00
Prerequisite(s):	(SCBIO1001 or SCENV1002 or SCENV1001)
Co-requisite(s):	Nil
Exclusion(s):	(ENVGC2712)
ASCED:	050901

Description of the Course :

This course addresses essential characteristics of the Australian flora and plant communities. The course 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 course 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, etc.)

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.** 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.

Course Content:

The course 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:

- Introduction to the Australian flora and its evolution.
- Botanical terminology.
- Ferns and fern allies; Gymnosperms.
- Introduction to Angiosperms; important families in the Australian flora.
- Monocot families.
- Photosynthesis and its ecological consequences.
- Pollination ecology.
- Seed ecology.
- Plants and fire.
- Plant life history strategies.
- Grazing ecology; plant defences.
- Plant biogeography.
- Threats to Australian plant communities.

Values:

- V1.** Appreciate and value the diversity, uniqueness and ethnobotanical uses of the Australian flora.
- V2.** Appreciate the ecological interactions and cultural significance of plants.

V3. Recognise the threats posed by human activity to the persistence of Australian plant communities.

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)	Code A. Direct B. Indirect N/A Not addressed	Assessment task (AT#)	Code A. Certain B. Likely C. Possible N/A Not likely
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.	K5, A2	A, A	AT4, AT4	A, B
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.	N/A	N/A	N/A	N/A
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.	A2	A	AT4	B
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, S3, A2, A3	A, A, B, A, B	AT4, AT4, AT4, AT4, AT3	A, A, A, B, C
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.	N/A	N/A	N/A	N/A

Learning Task and Assessment:

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
K1-K5	Quizzes, including early intervention task	Online quizzes	20-30%
K2, K3, S1-S4, A1	Herbarium assignment	Submitted plant collection	15-25%
K2, S1-S4, A1-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%

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
K1-K5, S1, S4	Final test	Online test	15-25%

Adopted Reference Style:

Australian Harvard