



# **BOTN19001 *Terrestrial Botany***

## **Term 1 - 2017**

Profile information current as at 28/04/2024 06:31 pm

All details in this unit profile for BOTN19001 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

### Corrections

#### **Unit Profile Correction added on 24-02-17**

Please note:

The correct date for residential school is  
27th April to 30th April 2017

## General Information

### Overview

In BOTN19001, you will learn about terrestrial plants – particularly, Australian plants. You will study their evolution, taxonomy, distribution and economic uses. In this Unit, emphasis will be placed on plant identification so you can apply this knowledge in vegetation surveys, ecosystem restoration, remote sensing, assessing responses of native flora to environmental impacts and selecting suitable plant species for economic development. Compulsory practical classes, field visits and herbarium collection will enable you to gain practical skills in plant identification and vegetation surveys.

### Details

Career Level: *Undergraduate*

Unit Level: *Level 2*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

Pre-requisites: BIOL11099 Living Systems OR BIOL11100 Functional Biology

Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the [Assessment Policy and Procedure \(Higher Education Coursework\)](#).

### Offerings For Term 1 - 2017

- Distance
- Rockhampton

### Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

### Residential Schools

This unit has a Compulsory Residential School for distance mode students and the details are:

Click here to see your [Residential School Timetable](#).

### Website

[This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.](#)

## Class and Assessment Overview

### Recommended Student Time Commitment

Each 6-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

### Class Timetable

#### [Regional Campuses](#)

Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

#### [Metropolitan Campuses](#)

Adelaide, Brisbane, Melbourne, Perth, Sydney

### Assessment Overview

#### 1. **Online Quiz(zes)**

Weighting: 15%

#### 2. **Practical Assessment**

Weighting: 45%

#### 3. **Examination**

Weighting: 40%

### Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the [University's Grades and Results Policy](#) for more details of interim results and final grades.

## CQUniversity Policies

**All University policies are available on the [CQUniversity Policy site](#).**

You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the [CQUniversity Policy site](#).

## Previous Student Feedback

### Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

#### Feedback from HAVE YOUR SAY

**Feedback**

Show students how to find the plants

**Recommendation**

A new video will be produced to explain where and how to find suitable plants for the plant collection assignment

**Action**

A new video was produced to show students the places to go to collect plant specimens - woodlands, creek side, road side, forests, sand dunes, salt flats, etc.

#### Feedback from HAVE YOUR SAY

**Feedback**

Most liked aspects of the course include: Field trip, residential school, resources provided for the unit, learning hands-on skills in plant identification, knowing more about native plants, allowing students to develop an interest in native plants. "The specimen collection assignment was fun and taught me skills that I will possibly use in the future." "This course will change your life, it will make you look at your surroundings totally differently and the lecturer has a lot of knowledge and is very approachable".

**Recommendation**

Residential school and field trip activities will be continued and they will be made more interactive. Students' appreciation of the lecturer is noted and thank you for these compliments.

**Action**

The field trips and activities on plant collection and identification will be continued

#### Feedback from HAVE YOUR SAY

**Feedback**

Residential schools to be scheduled much early in the Term and the students be supplied with a hard copy of the plant identification key

**Recommendation**

The residential school has been moved to middle of the Term. It is not practical to move it any earlier, as this would inconvenience many students. The possibility of mailing the students with a hard copy of the plant key is being explored.

**Action**

Residential school can only be offered during middle of the Term. I have recommended to the School to provide a hard copy of plant ID key

#### Feedback from HAVE YOUR SAY

**Feedback**

The videos opened automatically making operation of the Moodle site difficult

**Recommendation**

All videos will be run through Echo 360 to improve downloading speed.

**Action**

The videos have been uploaded via Echo 360. This should prevent them from opening automatically

## Unit Learning Outcomes

**On successful completion of this unit, you will be able to:**

1. Define selected botanical terms
2. Collect and curate specimens and use taxonomic keys to identify native plants
3. Examine characteristic features of terrestrial Australian flora, and describe the use of those features in vegetation management and their economic exploitation
4. Describe how native flora respond to environmental disturbances, and explain how this knowledge can be applied in revegetation and ecosystem reconstruction
5. Undertake vegetation surveys, interpret data and explain the use of GIS and remote sensing techniques in vegetation management.

N/A

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Online Quiz(zes) - 15%	•				
2 - Practical Assessment - 45%		•	•		•
3 - Examination - 40%	•		•	•	•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Communication	•	•	•		•
2 - Problem Solving		•	•	•	•
3 - Critical Thinking			•	•	•
4 - Information Literacy		•	•	•	
5 - Team Work					•
6 - Information Technology Competence		•			•
7 - Cross Cultural Competence			•		
8 - Ethical practice					

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
<b>9 - Social Innovation</b>					
<b>10 - Aboriginal and Torres Strait Islander Cultures</b>					

## Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
<b>1 - Online Quiz(zes) - 15%</b>	•	•	•			•		•		
<b>2 - Practical Assessment - 45%</b>	•	•	•	•	•		•			
<b>3 - Examination - 40%</b>	•	•	•							

## Textbooks and Resources

### Textbooks

BOTN19001

#### Prescribed

#### Plant Systematics

Edition: Second (2010)

Authors: Michael G. Simpson

Elsevier Academic Press

Sydney , NSW , Australia

ISBN: 978-0-12-374380-0

Binding: Hardcover

[View textbooks at the CQUniversity Bookshop](#)

### IT Resources

**You will need access to the following IT resources:**

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Lucid software 3.3 (download from [www.lucidcentral.org](http://www.lucidcentral.org))
- Microsoft Excel
- Microsoft Word

## Referencing Style

All submissions for this unit must use the referencing style: [Harvard \(author-date\)](#)  
For further information, see the Assessment Tasks.

## Teaching Contacts

**Nanjappa Ashwath** Unit Coordinator  
[n.ashwath@cqu.edu.au](mailto:n.ashwath@cqu.edu.au)

## Schedule

### Week 1 - 06 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Introduction Unit Overview Evolution & diversity of plants Morphology	Study Guide 1 Read Text Book Chapters 1, 6, 9 (also peruse Text Book Chapters 3, 4, 5).	Independent Practical Work (IPW) 1* Familiarise with herbarium techniques, site description and plant community description. Use Student Forum on the Moodle site to clarify doubts and to find new information. Refer to Youtube videos "Herbarium Techniques" (watch all 10 parts); <a href="https://tinyurl.com/herbarium-techniques">https://tinyurl.com/herbarium-techniques</a> Collect and curate at least one plant specimen during this week. Ask your lecturers for assistance, if required. (*Independent Practical Work to be undertaken by the students during each week of the Term. The scheduled official PRACTICAL SESSIONS will be held during residential school).

### Week 2 - 13 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Collection and curating Nomenclature Identification & authentication Herbarium maintenance	Study Guide 2 Read Text Book Chapters 17, 16, 12, 18, Appendix 1, Appendix 2 and the Resources supplied on the Moodle site for this week.	<b>Complete Online Quiz 1</b> IPW 2 Examine the morphology of a simple plant like hibiscus. Identify various parts and draw a floral diagram. Collect and curate plant specimens.

### Week 3 - 20 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Diversity and classification Taxonomic evidence History of plant taxonomy.	Study Guide 3 Read Text Book Chapters 2, 7 and 14	<b>Complete Online Quiz 2</b> IPW 3 Use a magnifying lens to draw floral diagrams of two small flowers (avoid grasses at this time). Collect and curate plant specimens.

### Week 4 - 27 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Plant families and their spotting characteristics Synoptic keys	Study Guide 4 Read Text Book Chapters 7, 8, 15 and the Resources supplied on the Moodle site for this week.	<b>Complete Online Quiz 3</b> IPW 4 Prepare a table showing characteristic features of selected families Collect and curate plant specimens

### Week 5 - 03 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Soils, climate and plants.	<p>Study Guide 5</p> <p>Read the Resources supplied on the Moodle site for this week.</p> <p>Familiarise with the soil types and their influence on plant growth, and the composition and structure of plant communities (serpentine, limestone, sand dunes, rainforests, mangroves).</p>	<p><b>Complete Online Quiz 4</b></p> <p>IPW 5</p> <p>Collect and curate plant specimens.</p>
<b>Vacation Week - 10 Apr 2017</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Work on your plant specimen collection assignment	<p>Prepare for your residential school.</p> <p>Please use the Term break to collect and curate most of the plant specimens required for your assignment.</p>	<p>IPW 5a</p> <p>Try to complete the COLLECTION part of your assignment during this break.</p> <p>Collect and curate plant specimens.</p>
<b>Week 6 - 17 Apr 2017</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Australian plant communities: origin, evolution and unique features.	<p>Study Guide 6</p> <p>Read the Resources supplied on the Moodle site for this week.</p> <p>Examine how Australian flora has changed over time in response to continental drift, Circum Antarctic Current, and human inhabitation.</p>	<p><b>Complete Online Quiz 5</b></p> <p>IPW 6</p> <p>Complete drawing floral diagrams - for most of the specimens you have collected.</p>
<b>Week 7 - 24 Apr 2017</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Field trip	<p>Study Guide 7</p> <p>Study the Resources supplied on the Moodle site for this week.</p> <p>On day 3 of the residential school, we will visit selected plant communities that are found around Rockhampton.</p> <p>Read about unique features of the following plant communities, viz., brigalow, serpentine flora, limestone flora, woodlands, coastal heaths, rain forests, grasslands, wetlands and mangroves.</p>	<p>IPW 7</p> <p><b>Practical test (plant identification) during residential school</b></p> <p>Residential school: 24 April - 27 April 2017.</p> <p>Query why the composition and structure of plant communities found around Rockhampton are different to those present at other locations.</p> <p><b>Handing in of note book.</b></p>
<b>Week 8 - 01 May 2017</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Vegetation survey	<p>Study Guide 8</p> <p>Understand various methods of surveying plants and classifying vegetation into regional ecosystems (RE's) and land zones.</p> <p>Read the Resources supplied on the Moodle site for this week.</p>	<p>IPW 8</p> <p>Collect and curate plant specimens.</p>
<b>Week 9 - 08 May 2017</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Data analysis and display- basic and modern methods of data analysis and presentation	<p>Study Guide 9</p> <p>Text Book Chapters 2, 19 and Appendix 4</p> <p>Comparison of different plant communities.</p> <p>Preparation of dendrograms and PCA plots to show interrelationships between different species or communities.</p> <p>Read the Resources supplied on the Moodle site for this week.</p>	<p>IPW 9</p> <p>Finalise your plant specimens.</p>



**Week 10 - 15 May 2017**

Module/Topic	Chapter	Events and Submissions/Topic
Economic uses of plants- plant species, and plant parts used in daily life. Bush food and medicines. Bush food and medicinal plants. Techniques used in the development of new cultivars.	Study Guide 10 Text Book Chapters 13 and 14 Read the Resources supplied on the Moodle site for this week.	IPW 10 Ensure that you have collected, curated and identified required number of specimens. Inspect the specimens and make sure that they are clean and intact (if not, replace the damaged ones with good specimens).

**Week 11 - 22 May 2017**

Module/Topic	Chapter	Events and Submissions/Topic
Environmental effects on plants. Identification of stress tolerant plants	Study Guide 11 Understand responses of plants to environmental and edaphic stresses (fluoride, sulphur, acid rain, drought, salinity, waterlogging and heavy metals) and the impacts of global warming on Australian plants. Read the Resources supplied on the Moodle site for this week.	IPW 11 Finalise your plant specimens (check for quality, labeling, floral diagrams and keying)

**Week 12 - 29 May 2017**

Module/Topic	Chapter	Events and Submissions/Topic
Ecosystem reconstruction- principles of matching plants to site conditions to achieve long term sustainability.	Study Guide 12 Examine the strategies and the importance of using native plants in mine site revegetation and restoration programs. Read the Resources supplied on the Moodle site for this week.	IPW 12 <b>Despatch your plant samples for assessment.</b>

**Review/Exam Week - 05 Jun 2017**

Module/Topic	Chapter	Events and Submissions/Topic
	Read ALL parts of the STUDY GUIDE and the and the Resources supplied on the Moodle site. Try to answer the questions listed at the end.	Refer to past EXAMINATION PAPERS and note the presence of three types of questions, Viz 'Essay Type', 'Short Answers' and 'Differentiate Between'. Consult your lecturers and seek assistance, if required.

**Exam Week - 12 Jun 2017**

Module/Topic	Chapter	Events and Submissions/Topic
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**Term Specific Information**

Although the Term starts on the 6th of March, students are encouraged to start collecting plant specimens prior to commencement of the Term. This is because most plants in CQ flower during rainy season (Jan-March) and hence your chances of collecting good specimens will be very high during this season.  
Please use the information provided in the YOUTUBE ("HERBARIUM TECHNIQUES" ; [https://www.youtube.com/playlist?list=PLycGQqmgij9qQn64D9hTDIyan1VaTWDLw&disable\\_polymer=true](https://www.youtube.com/playlist?list=PLycGQqmgij9qQn64D9hTDIyan1VaTWDLw&disable_polymer=true) or the Moodle site) to prepare yourself for a plant collection trip.

**Assessment Tasks****1 On line botanical terms and concepts quiz****Assessment Type**

Online Quiz(zes)

**Task Description**

Please attempt online quizzes in week 2, 3, 4, 5 and 6. These quizzes will help familiarize with various botanical terms used in the Unit.

**Number of Quizzes**

5

**Frequency of Quizzes**

Other

**Assessment Due Date**

Please complete the quiz by Sunday midnight of the scheduled week, as the quiz may not be accessed after this date.

**Return Date to Students**

Quiz results will be available to the students one week after the expiry of each quiz.

**Weighting**

15%

**Minimum mark or grade**

40%

**Assessment Criteria**

Choose a correct answer (s) from multiple choice. A correct answer will score one mark.

**Referencing Style**

- [Harvard \(author-date\)](#)

**Submission**

Online

**Submission Instructions**

Complete these tests online by choosing the right answers. The quizzes (only one per week) will appear in week 2, 3, 4, 5 and 6. You will have to score a minimum of 40% from all 5 quizzes.

**Learning Outcomes Assessed**

- Define selected botanical terms

**Graduate Attributes**

- Communication
- Problem Solving
- Critical Thinking
- Information Technology Competence
- Ethical practice

## 2 Practical Assessment

**Assessment Type**

Practical Assessment

**Task Description**

This assessment has three components. They are:

1. Collecting, curating (mounting, labeling), drawing floral diagrams and identification (keying) of 20 specimens obtained by the students on their own (25 marks).
2. Identification of 5 plant specimens that are supplied by the lecturer during residential school in one of the practical sessions (in-class test) (15 marks).
3. Submission of a practical note book containing observations recorded, data analysed and the notes taken during practical sessions and field trips (5 marks).

**Both Rockhampton and Flex students must attend residential school to satisfactorily complete this course.**

**Assessment Due Date**

Plant specimens are due in week 12. Plant identification test will be conducted during the last day of residential school (27th April 2017). Handing in of note book will occur on the last day of residential school (27th April 2017).

**Return Date to Students**

Please see the Moodle site for further details on specimen collection, submission and testing, and practical book

submission.

### Weighting

45%

### Minimum mark or grade

40%

### Assessment Criteria

1. Only technically correct specimens will be considered, and only **ONE specimen per GENUS** will be considered towards 20 specimens.
2. The submitted specimens will be assessed for their quality (drying, mounting), labeling, floral diagram and the steps taken in keying.
3. The in-class plant identification test will be assessed based on the evidence provided by the student for plant identification (via floral diagrams), steps taken in keying, listing of each of the keying steps used, and other observations recorded to help identify the specimen.
4. An A4 size note book or a ring binder may be used to record the procedures followed, observations taken and the data analysed during practical sessions and field trips.
5. The information pertaining to each session of the residential school must be written in separate sections and the note book should be made available to the lecturers during residential school.

### Referencing Style

- [Harvard \(author-date\)](#)

### Submission

Offline

### Submission Instructions

Students should submit 20 TECHNICALLY correct plant specimens along with a LIST showing the names of the species collected,(Genus level) and the families to which they belong. Please pack the specimens in an A3 size card board box (eg 'PostPac' ) and mail or hand-in the box to the Admin officer, School of Health, Medical and Applied Sciences, Level 1, Bldg 6, CQUniversity, Rockhampton, Qld 4702. The post-mark will be used to assess the date posted.

### Learning Outcomes Assessed

- Collect and curate specimens and use taxonomic keys to identify native plants
- Examine characteristic features of terrestrial Australian flora, and describe the use of those features in vegetation management and their economic exploitation
- Undertake vegetation surveys, interpret data and explain the use of GIS and remote sensing techniques in vegetation management.

### Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Cross Cultural Competence

## Examination

### Outline

Complete an invigilated examination.

### Date

During the examination period at a CQUniversity examination centre.

### Weighting

40%

### Length

180 minutes

### Minimum mark or grade

40%

### Exam Conditions

Closed Book.

## Materials

Calculator - non-programmable, no text retrieval, silent only

Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).

## Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the [Student Academic Integrity Policy and Procedure](#). This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

### What is a breach of academic integrity?

A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

### Why is academic integrity important?

A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

### Where can I get assistance?

For academic advice and guidance, the [Academic Learning Centre \(ALC\)](#) can support you in becoming confident in completing assessments with integrity and of high standard.

### What can you do to act with integrity?



#### Be Honest

If your assessment task is done by someone else, it would be dishonest of you to claim it as your own



#### Seek Help

If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)



#### Produce Original Work

Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem