

ENS318 Plant Growth and Reproduction

School: School of Science, Technology and Engineering

2026 | Trimester 2

UniSC Sunshine Coast
UniSC Moreton Bay

**BLENDED
LEARNING**

Most of your course is on campus but you may be able to do some components of this course online.

Please go to unisc.edu.au for up to date information on the teaching sessions and campuses where this course is usually offered.

1. What is this course about?

1.1. Description

Plants enable other life forms on the planet and drive all ecosystems. This course explores concepts of plant adaptations to the environment. You will learn about the mechanisms that enable plants to survive, grow and reproduce in the harshest environments, and examine key processes and applications such as flowering, pollination, fruit production, germination, plant growth regulators, root function, soils and plant nutrition, photosynthesis and carbon sequestration, plant water relations, transpiration, carbon partitioning, nursery propagation and plant tissue culture.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Learning materials – Asynchronous learning material	2hrs	Week 1	12 times
Laboratory 1 – On Campus lab	3hrs	Week 1	6 times
Fieldwork – Fieldwork. Week to be determined	6hrs	Not applicable	Once Only
Seminar – On campus seminar	1hr	Week 1	3 times

1.3. Course Topics

Plant reproduction; seed germination; plant hormones; root, stem and leaf function; plant nutrient, water and carbon uptake; plant propagation.

2. What level is this course?

300 Level (Graduate)

Demonstrating coherence and breadth or depth of knowledge and skills. Independent application of knowledge and skills in unfamiliar contexts. Meeting professional requirements and AQF descriptors for the degree. May require pre-requisites where discipline specific introductory or developing knowledge or skills is necessary. Normally undertaken in the third or fourth full-time study year of an undergraduate program.

3. What is the unit value of this course?

12 units

4. How does this course contribute to my learning?

COURSE LEARNING OUTCOMES		GRADUATE QUALITIES
On successful completion of this course, you should be able to...		Completing these tasks successfully will contribute to you becoming...
1	Perform and interpret nursery and laboratory experiments, and record and report relevant information in a standard scientific format.	Empowered Ethical
2	Evaluate the sustainability implications of plant growth and reproduction strategies	Sustainability-focussed
3	Describe physiological processes in plants, recognize structural features, relate structure and function to ecology, and apply this framework to new situations.	Knowledgeable Empowered
4	Search the scientific literature for information and present this information in an appropriate descriptive, critical written format.	Creative and critical thinker Empowered
5	Use a microscope to examine and illustrate specimens, use scientific apparatus to quantify aspects of physiology, and use scientific observation skills to interpret scientific results.	Knowledgeable Empowered

5. Am I eligible to enrol in this course?

Refer to the [UniSC Glossary of terms](#) for definitions of “pre-requisites, co-requisites and anti-requisites”.

5.1. Pre-requisites

Not applicable

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

Not applicable

5.4. Specific assumed prior knowledge and skills (where applicable)

You will have prior knowledge and skills in scientific research design and statistical methods that can be used to summarise, analyse and interpret scientific data.

5.5. Microcredential Information

Not applicable

6. How am I going to be assessed?

6.1. Grading Scale

Standard Grading (GRD)

High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL).

6.2. Details of early feedback on progress

Answers provided to quiz conducted in week 4.

6.3. Assessment tasks

DELIVERY MODE	TASK NO.	ASSESSMENT PRODUCT	INDIVIDUAL OR GROUP	WEIGHTING %	WHAT IS THE DURATION / LENGTH?	WHEN SHOULD I SUBMIT?	WHERE SHOULD I SUBMIT IT?
All	1	Quiz/zes	Individual	0%	1 hour	Week 4	Online Test (Quiz)
All	2	Written Piece	Individual	50%	6 pages	Week 10	Online Assignment Submission with plagiarism check
All	3	Examination - Centrally Scheduled	Individual	50%	2 hours	Exam Period	Online Assignment Submission with plagiarism check

All - Assessment Task 1: Formative Quiz

GOAL:	To embed learning objectives and knowledge covered in the early weeks		
PRODUCT:	Quiz/zes		
AUTHORSHIP STATEMENT:			
FORMAT:	Online Quiz		
CRITERIA:	No.		Learning Outcome assessed
	1	Correct application of knowledge regarding flowers and fruits	3
GENERIC SKILLS:			

All - Assessment Task 2: Scientific Report

GOAL:	To develop data collection, analysis, reporting and literature review skills by conducting real experiments and using scientific apparatus related to plant growth and reproduction		
PRODUCT:	Written Piece		
AUTHORSHIP STATEMENT:			
FORMAT:	You will submit a scientific report containing the introduction, methods, results and discussion from the practical work conducted.		
CRITERIA:	No.		Learning Outcome assessed
	1	Written communication of the scientific outcomes of the practical work	1 4
	2	Evaluation of content, data analysis, presentation and scientific interpretation of the results	2 4 5
GENERIC SKILLS:			

All - Assessment Task 3: End of trimester examination

GOAL:	To demonstrate the cumulative learning in this course including plant physiological processes, structure and function in relation to ecology, and plant management strategies to ensure sustainability						
PRODUCT:	Examination - Centrally Scheduled						
AUTHORSHIP STATEMENT:							
FORMAT:	This 2-hour examination will be based on learning material, practicals and field trip, and will be held in the central examination period.						
CRITERIA:	<table border="1"><thead><tr><th>No.</th><th></th><th>Learning Outcome assessed</th></tr></thead><tbody><tr><td>1</td><td>Application of theoretical and practical knowledge of plant growth and reproduction (Short answer questions)</td><td>3 4</td></tr></tbody></table>	No.		Learning Outcome assessed	1	Application of theoretical and practical knowledge of plant growth and reproduction (Short answer questions)	3 4
No.		Learning Outcome assessed					
1	Application of theoretical and practical knowledge of plant growth and reproduction (Short answer questions)	3 4					
GENERIC SKILLS:							

7. Directed study hours

A 12-unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Student workload is calculated at 12.5 learning hours per one unit.

8. What resources do I need to undertake this course?

Please note: Course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Canvas site– Please log in as soon as possible.

8.1. Prescribed text(s) or course reader

You need regular access to the resource(s) below. Many texts are available as ebooks through the [Library](#) at no additional cost.

REQUIRED?	AUTHOR	YEAR	TITLE	EDITION	PUBLISHER
Recommended	BJ Atwell, PE Kriedemann, CGN Turnbull	2010	Plants in Action (available as a free on-line edition: http://plantsinaction.science.uq.edu.au/edition1/?q=content/title-page)	n/a	Macmillan Education Australia

8.2. Specific requirements

Laboratory coat, covered shoes, hat

9. How are risks managed in this course?

Risk assessments have been performed for all laboratory classes and a moderate level of health and safety risk exists. Moderate risks are those associated with laboratory work such as working with chemicals and hazardous substances. You will be required to undertake laboratory induction training and it is also your responsibility to review course material, search online, discuss with lecturers and peers and understand the health and safety risks associated with your specific course of study and to familiarise yourself with the University's general health and safety principles by reviewing the [online induction training for students](#), and following the instructions of the University staff

10. What administrative information is relevant to this course?

10.1. Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Canvas, are electronically checked through Turnitin. This software allows for text comparisons to be made between your submitted assessment item and all other work to which Turnitin has access.

10.2. Assessment: Additional Requirements

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

- (a) The final mark is in the percentage range 47% to 49.4%; and
- (b) The course is graded using the Standard Grading scale

Eligibility for Supplementary Assessment Your eligibility for supplementary assessment in a course is dependent of the following conditions applying: The final mark is in the percentage range 47% to 49.4% The course is graded using the Standard Grading scale You have not failed an assessment task in the course due to academic misconduct

10.3. Assessment: Submission penalties

Late submissions may be penalised up to and including the following maximum percentage of the assessment task's identified value, with weekdays and weekends included in the calculation of days late:

- (a) One day: deduct 5%;
- (b) Two days: deduct 10%;
- (c) Three days: deduct 20%;
- (d) Four days: deduct 40%;
- (e) Five days: deduct 60%;
- (f) Six days: deduct 80%;
- (g) Seven days: A result of zero is awarded for the assessment task.

The following penalties will apply for a late submission for an online examination:

- Less than 15 minutes: No penalty
- From 15 minutes to 30 minutes: 20% penalty
- More than 30 minutes: 100% penalty

10.4. Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Central Examinations
- Deferred Examinations
- Student Conduct
- Students with a Disability

For more information, visit <https://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching>

10.5. Student Charter

UniSC is committed to excellence in teaching, research and engagement in an environment that is inclusive, inspiring, safe and respectful. The [Student Charter](#) sets out what students can expect from the University, and what in turn is expected of students, to achieve these outcomes.

10.6. General Enquiries

For course-specific questions, contact your teaching staff or Course Coordinator.

For other enquiries or to access support, please contact Student Central:

- [UniSC Student Central](#)
- [UniSC Adelaide Student Central](#)

