

MODULE DESCRIPTOR

Module Title

Plant Biology

Reference	AS2106	Version	2
Created	August 2021	SCQF Level	SCQF 8
Approved	August 2018	SCQF Points	15
Amended	August 2021	ECTS Points	7.5

Aims of Module

To provide students with the ability to explain the fundamentals of plant biology and appreciate the importance of plants to society.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Explain plant evolution and describe the major plant groups.
- 2 Discuss the requirements for the survival and growth of plants.
- 3 Describe the processes associated with plant survival, growth and reproduction.
- 4 Discuss the importance of plants and plant products to society.
- 5 Demonstrate effective teamwork and communications skills

Indicative Module Content

Introduction to the Plant Kingdom: evolution of plants, taxonomic classification, principal characteristics of lower and higher plants. Plant growth requirements: environmental factors, water, light, temperature, gravity, gases, soil minerals, macronutrients, micronutrients, salinity, pH, biotic factors, hormones, photosynthesis. Plant growth: cell division, transpiration. Sexual reproduction, pollination, fertilisation, germination, seeds and fruits. Vegetative growth, asexual reproduction. senescence, abscission. Plants and society: plant breeding, crop production, secondary metabolites, plant biotechnology.

Module Delivery

This is a lecture based course supplemented with tutorial sessions and virtual lab exercises.

Indicative Student Workload	Full Time	Part Time
Contact Hours	36	N/A
Non-Contact Hours	114	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
Actual Placement hours for professional, statutory or regulatory body		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Examination	Weighting:	70%	Outcomes Assessed:	1, 2, 3
Description:	The examination consists of a balance of short answer and extended response questions.				

Component 2

Type:	Coursework	Weighting:	30%	Outcomes Assessed:	4, 5
Description:	The coursework consists of an oral group presentation with peer assessment				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The first grade represents Component 1 (EX1) weighted as major and the second, Component 2 (CW1), weighted as minor. A module grade of D is required for a pass, with compensation of grade E in Component 1 or Component 2 permitted. Non-submission of either component will result in an NS grade.

Module Grade	Minimum Requirements to achieve Module Grade:
A	AA, AB
B	AC, AD, AE, BA, BB, BC, CA
C	BD, BE, CB, CC, CD, DA, DB
D	CE, DC, DD, DE, EA, EB, EC
E	AF, BF, CF, DF, ED, EE, EF, FA, FB, FC, FD
F	FE, FF
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	Successful completion of Stage 1 of the course or equivalent.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

- 1 EVERT, R.F. AND EICHORN, S.E., *Raven Biology of Plants*. Current Edition. : MacMillan.
- 2 BIDLACK, J.E. AND JANSKY, S.H., *Stern's Introductory Plant Biology*. Current Edition.: McGraw Hill.
- 3 MAUSETH, J.D., *Botany*. Current Edition.: Jones and Bartlett