

Module code

SPB-2207

Type of module

Undergraduate: Biological Sciences – Major Core

Plant Physiology



Modular credits

4

Total student
engagement

56 hours

Prerequisite

None

Anti-requisite

None

Aims

To provide an understanding of the fundamental processes that govern plant growth, development, and responses to environmental factors.

Module learning outcomes (MLO)

On successful completion of this module, a student will be expected to be able to:

MLO 1

Analyse the fundamental physiological processes that regulate plant growth, development and responses to environmental factors.

MLO 2

Analyse the mechanisms underlying key plant physiological functions.

MLO 3

Apply knowledge of plant physiology to address practical problems in crop production and sustainable agriculture.

MLO 4

Critically evaluate recent advances and emerging trends in plant physiology and evaluate their applications in modern agriculture and horticulture.

Module contents

Water and plant cells	Water balance of plants	Mineral nutrition
Solute transport	Photosynthesis	Phloem translocation
Hormonal control of growth and development	Selected topics related to modern agricultural and horticultural practices	

Assessment

60%

Examination

40%

Coursework



Examination — 60%

Written practical reports — 15%

Class tests — 15%

Poster or oral presentation — 10%

Formative assessment

Weekly discussion
and feedback

Summative assessment

COMPONENT	WEIGHTING
Examination	60%
Coursework	40%
Individual	30%
Written practical reports	15%
Class tests	15%
Group	10%
Poster or oral presentation	10%

Graduate attributes and skills

Programme learning objectives (PLO) addressed

- | | |
|---|---|
| 1 PLO 1 (Fundamental Theoretical Knowledge in Biology) | 2 PLO 2 (Application of Scientific Methods and Data Analysis) |
| 3 PLO 3 (Integrated Laboratory, Field and Technical Skills) | 4 PLO 4 (Critical Thinking and Problem-Solving Skills) |
| 5 PLO 5 (Sustainability and Responsible Practice) | |

Sustainability concept addressed

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|--------------------------|
| 2 SDG 2 Zero Hunger |
| 13 SDG 13 Climate Action |
| 15 SDG 15 Life on Land |

Digital skills/software used (not limited to)

- Microsoft Office software (e.g. Word, Excel)
- Application software (e.g. Web browsers, statistical programs, cloud-based storage, file sharing platform)
- eLearning platforms (e.g. CANVAS, MS Teams, Zoom)

Micro-credentialling option

No

Stackable towards GenBESTARI Undergraduate Degree Programme or other relevant Lifelong Learning Programmes

No

Document details

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