Module Specification

Plant Growth and Survival

Version: 2025-26, v3.0, Approved

Contents

Part 1: Information

Module title: Plant Growth and Survival

Module code: USSJQD-15-2

Level: Level 5

For implementation from: 2025-26

UWE credit rating: 15

ECTS credit rating: 7.5

College: College of Health, Science & Society

School: CHSS School of Applied Sciences

Partner institutions: None

Field: Applied Sciences

Module type: Module

Pre-requisites: Life on Earth 2023-24, Life on Earth 2025-26

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Plants constitute an important part of any ecosystem, providing food, habitat and shelter and biome development that supports a multitude of other microbial and animal species, including our own.

Pre-requisites: Students must have passed USSK5C-30-1 Life on Earth before starting this module.

Features: Not applicable

Educational aims: The module aims to develop an understanding of plant biology and adaptations in the wider contexts of plant ecology , conservation and the impact of anthropogenic activity.

Outline syllabus: Determining how plants manage to exist and thrive in different niche habitats and how they overcome the challenges of the environmental change they face by being sessile, is both important for agricultural production and to understand the wider ecological impact of anthropological activity. Therefore, this module examines how plants have evolved and adapted to grow in different temperatures, in environments with different levels of light, water and nutrient availability and how such environmental factors working in combination determine plant morphology, photosynthetic ability, rate of growth and ultimately, plant size and yield. The module also examines how plants defend against diseases and how phytohormones work interactively to regulate plant responses to changes in both these abiotic and biotic factors. Finally, the module examines the concept of plants living together and along with the adaptations mentioned above, examines the roles of competition, facilitation and communication in the formation, maintenance and migration of plant communities within a changing environment.

Part 3: Teaching and learning methods

Teaching and learning methods: The module is delivered as a mixture of lectorials, tutorials and practical classes. The module will be delivered both on-site and online, as appropriate.

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 An understanding of the adaptations in plants that enable biomass production under a range of abiotic and biotic conditions.

MO2 The ability to analyse, discuss and produce data related to key concepts in plant-environment interactions.

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 114 hours

Face-to-face learning = 36 hours

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/modules/ussjqd-15-2.html

Part 4: Assessment

Assessment strategy: Assessment: Report (3000 words)
Learning is assessed via a scientific report to build on a practical session that develops key skills and enables assessment of module outcomes. In the module's practical sessions the students will learn key laboratory skills. In one of the practical sessions they will use the skills to generate data for their scientific report. In their scientific report they will present and analyse the data they generated and will then discuss them fully within the content of the key plant themes and module outcomes.

The scientific report has been selected to assess the ability of the students to write scientifically, present and analyse data, independently research the literature and discuss key concepts in plant biology. This assessment has also been designed to underpin the journal article produced for the level 6 project module by developing skills in formal, structured scientific report writing. Formative activities underpinning this assessment include laboratory practicals, in-class discussions and bespoke online coursework support sessions.

Assessment tasks:

Report (First Sit)
Description: A scientific report based on data generated in the laboratory and that uses scientific journal format including a full discussion of results in plant biological context (3000 words)
Weighting: 100 %
Final assessment: Yes
Group work: No

Learning outcomes tested: MO1, MO2

Report (Resit)
Description: A scientific report based on data generated in the laboratory and that uses scientific journal format including a full discussion of results in plant biological context (3000 words)
Weighting: 100 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO1, MO2

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Biological Sciences {Foundation} [Frenchay] BSc (Hons) 2023-24

Biological Sciences {Foundation} [Frenchay] MSci 2023-24

Wildlife Ecology and Conservation Science {Foundation} [Frenchay] MSci 2023-24

Environmental Science {Foundation} [Frenchay] BSc (Hons) 2023-24

Environmental Science {Foundation} [Frenchay] MSci 2023-24

Wildlife Ecology and Conservation Science {Foundation} [Zoo] BSc (Hons) 2023-24

Environmental Science [Frenchay] BSc (Hons) 2024-25

Environmental Science [Frenchay] - WITHDRAWN MSci 2024-25

Wildlife Ecology and Conservation Science [Frenchay] - WITHDRAWN MSci 2024-25

Wildlife Ecology and Conservation Science [Frenchay] BSc (Hons) 2024-25

Biological Sciences [Frenchay] BSc (Hons) 2024-25

Biological Sciences [Frenchay] - WITHDRAWN MSci 2024-25