

## Soil and Plant Science

### Applying for this course:

This course is targeted at those learners who would like to work as a Gardener, Landscaper, Farmer or Horticulturalist. To successfully complete this course, learners need to learn about the various tasks and methods used in this field of work. This course is aimed at those individuals who wish to work in this profession for the very first time, or for those persons who are already working in this line of profession but wish to further enhance their existing skills.

Trainees should be 16 years of age, have an MQF Level 1 school leaving certificate and have an MQF level 2 qualification in Award in Principles of Gardening and Landscaping or other similar qualifications including the Certificate of Competence for Gardener and Horticulturalist.

### Course Duration

This course is of 21 hours duration and consists of one Module - (including 2-hours assessment).

### General pedagogical guidelines and procedures for this course:

The delivery of this Course will be mainly held through a series of discussions, hands-on exercises and fieldwork. The trainer will also be holding lessons with the learners which will consist of various presentations. Since this course will be pegged to MQF level 3, learners will be expected to do further research on the topics dealt with during the classroom activities.

### General assessment policy and procedures for this course:

The assessment will vary from one module to the other. The learner will be assessed through written assessments that will take place by the end of each module, to assess and consolidate the learning being covered. Assessments include written assessments, case studies, and projects.

Ongoing assessments will also take place throughout each module. These do not have a weighting on the total mark obtained.

For this module, the learner will be assessed through a written assignment in the form of an individual project.

### Module 2 Learning Outcomes – Soil and Plant Science

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| <ul style="list-style-type: none"><li>✓ Be responsible for the managing of soil health and management to different soil types and compositions ensuring optimal conditions for plant growth and sustainability.</li><li>✓ Comply with organic farming practices that effectively utilize organic fertilizers.</li><li>✓ Seek to manage and mitigate the environmental impacts of fertilizer use, including runoff, leaching, and greenhouse gas emissions.</li></ul> | <ul style="list-style-type: none"><li>✓ Deal with the different types of inorganic fertilizers, including nitrogen (N), phosphorus (P), potassium (K), and micronutrient supplements.</li><li>✓ Be responsible for the immediate and long-term availability of nutrients provided by these fertilizers.</li><li>✓ Manage how organic and inorganic fertilizers interact with soil properties, including pH and microbial activity.</li></ul> |
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Deal with the role of organic matter in soil structure and nutrient retention compared to inorganic additives.	
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### **Module 2 Assessment:**

Learners will be assessed through ongoing assessment by way of oral exercises and practical/hands-on sessions throughout the entire course. The Ongoing Assessment will not have a weighting on the total mark obtained.

A written assignment will take place in the form of an individual project on a specific title such as soil conservation techniques or plant breeding methods. Expected word count is between 600 to 800. The pass mark is that of 45%.

The Malta Further and Higher Education Authority (MFHEA) deems this certificate to be at Level 3 of the Malta Qualifications Framework and the European Qualifications Framework for Lifelong Learning. This course comprises study modules to which a total of 28 ECTS points are assigned.