TEAGASC COLLEGE OF AMENITY HORTICULTURE

PART TIME

LEVEL 5 **COMPONENT IN** HORTICULTURE

Part time courses or component awards allow learners to select individual subjects in Horticulture from any of our major awards at Level 5. These courses are intended for prospective students who are currently employed in the horticulture industry and who wish to further their career development in their chosen sector. At Level 5 they can be pursued by individuals as taster modules to identify if further engagement in Horticulture is warranted or desired.

These courses will enable the student to develop a greater understanding of the sciences underpinning their chosen sector, and will also help them improve their skills and competence at a practical level.

MODULE CHOICE

11 Modules

LOCATION

- National Botanic Gardens,
- Ashtown Campus, Dublin 15.

COST

15 Credit Module = €240.00

10 Credit Module = €180.00

These courses are offered at a time and in a manner the best meet demands of the horticulture industry. They are offered over the academic year during which time students will undertake a full programme of both academic and practical training.

As well as providing the learner with a taste of 3rd level training in their chosen sector, these courses will equip the learner with the knowledge skill and competence relevant to the sector in which they are employed.

Course material will be delivered face to face through a combination of practical instruction and assessment and class based teaching. All practicals will be delivered face to face for instruction and assessment in the National Botanic Gardens and Teagasc Ashtown.

Moodle is the online learning platform that will be used as the resource for supplementary learning content for students. Moodle will also be used for hosting recorded class content for some but not all modules



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PART TIME

Biodiversity & the Natural Environment (5N2553)



Course Summary

The Teagasc College at the National Botanic Gardens, Glasnevin are offering a QQILevel 5 component award in Biodiversity and the Natural Environment which will equip the learner with the knowledge, skills and competence to value the natural environment as a sustainable resource. The course will lead to a minor award at NFQ level 5 in Biodiversity and the Natural Environment.

Who should Apply?

This course is designed for people who are currently pursuing careers in Horticulture or other similar disciplines.

This subject is worth 15 credits which can be counted towards further studies at Level 5. By taking other Level 5 modules, students may be able to build towards a full major award of QQI Level 5 Certificate in Horticulture.

Module Content

On completion of this module, students will be able to:

- Explain environmental terminology.
- Describe the role of water quality.
- Describe the effects of human activity on the environment.
- Explain the role of biodiversity.
- Review the Wildlife Act.
- Describe a habitat using tools
- Prepare an environmental survey

Course Structure

The course will be offered in a one day session over a 10 week period from January to March. Each session will comprise of lectures and hands-on practical / demonstration exercises. Skills learned throughout the year will be assessed at regular intervals. Students will be supplied with appropriate PPE (Personal Protection Equipment) but they will be required to have safety boots and appropriate work trousers for each of the practical / demonstration sessions. Please contact the college of your choice for precise details on the course structure, delivery and current fees.

CREDITS POINTS	15
COST	€240.00
VENUE	Botanics
DATES	September to December
DAY/TIME	Monday 9.00 am to 4.30 pm

PART TIME

Horticultural Mechanisation (5N2559)



Course Summary

The QQI level 5 component award in Horticultural Mechanization will equip the learner with the knowledge, skill and competence to operate and maintain a range of hand and powered horticultural machinery and implements. This course will lead to a minor award at NFQ Level 5 in Horticulture Mechanisation (5N259).

Who Should Apply?

This course is designed for people currently pursuing careers in any horticulture sector and for those who wish to further their knowledge and experience of the safe use and maintenance of a wide range of hand and pedestrian operated equipment used in the sector. This module offers participants a chance to study at the Teagasc College, National Botanic Gardens. By taking other Level 5 modules, students may be able to build towards a full award of QQI Certificate in Horticulture. Part of this module will be delivered at the College campus at Teagasc Food Research Centre, Ashtown, Dublin 15.

Module Content

On completion of this module, students will be able to:

- Identify a range of machinery and hand tools
- Use a range of hand tools for soil cultivation
- Describe the working principles of engines used in horticulture
- Use a range of hand operated mowers
- Use a pedestrian operated rotary cultivator
- Use a hedge trimmer
- Use a strimmer
- Use a knapsack sprayer
- Service a diesel or two and four-stroke petrol engine

Duration

The course is offered on one day per week. Each session will comprise of lectures and hands-on practical / demonstration exercises. Skills learned throughout the programme will be assessed at regular intervals. Students will be provided with appropriate PPE but will be required to have safety boots and appropriate work trousers for each of the practical / demonstration session. Check with College for availability each year.

CREDITS POINTS	15
COST	€240.00
VENUE	Ashtown
DATES	January to March
DAY/TIME	Tuesday 9.00 am to 4.30 pm



Course Summary

The QQI level 5 component award in Plant Science will equip the learner with the knowledge, skills and competence to understand plant structure, processes, growth and development in a horticultural context. This course will lead to a minor award at NFQ Level 5 in Plant Science (5N2528).

Who Should Apply?

It is suited for people who are currently pursuing careers in all of the various horticultural sectors or for those who feel they would like to explore this particular area of horticulture. This module offers participants a chance to study at the Teagasc College, National Botanic Gardens. By taking other Level 5 modules, students may be able to build towards a full award of QQI Certificate in Horticulture.

Module Content

On completion of this module, students will be able to:

- Discuss plant anatomy.
- Illustrate secondary thickening
- Describe plant processes and their relationship with environmental factors
- Outline the life cycle and development of plants
- Describe the functions of plant hormones
- Apply Mendel's Law of inheritance
- Outline processes of conventional plant breeding
- Outline characteristics of micro-organisms
- Investigate the system of plant classification.

Duration

The course will be offered in one 2 hour session per week over a 25 week period commencing in early September and running through to mid-March. Students will be required to undertake class work and some laboratory work. It will be offered in the Teagasc College National Botanic Gardens. Course will be assessed through written theory exam and assignment. Check with College for availability each year.

CREDITS	10
COST	€180.00
VENUE	Botanics
DATES	September to March
DAY/TIME	Wednesday 1.30 pm to 3.30 pm

PART TIME Soil Science & Growing Media (5N2530)



Course Summary

The purpose of this award is to equip the learner with the knowledge, skill and competence to evaluate soils and growing media with regard to their utilization in a horticultural context. This course will lead to a minor award at NFQ Level 5 in Soils Science and Growing Media (5N2530).

Who Should Apply?

It is suited for people who are currently pursuing careers in all of the various horticultural sectors or for those who feel they would like to explore this particular area of horticulture. This module offers participants a chance to study at the Teagasc College, National Botanic Gardens. By taking other Level 5 modules, students may be able to build towards a full award of QQI Certificate in Horticulture.

Module Content

On completion of this module, students will be able to:

- Explain the origin of soils
- Investigate soil profiles and summarize sol groups
- Describe the physical characteristics of growing media
- Outline the chemical characteristics of growingmedia
- Outline soil fertility and plant nutrition
- Explain drainage
- Assess the physical and nutrient status of soils using safe working practices.

Duration

The course will be offered in one 2 hour session per week over a 25 week period commencing in early September and running through to mid-May. Students will be required to undertake class work and some laboratory work. It will be offered in the Teagasc College National Botanic Gardens. Course will be assessed through written theory exam some skills work and an assignment. Check with College for availability each year.

CREDITS	10
COST	€180.00
VENUE	Botanics
DATES	September to March
DAY/TIME	Thursday 9.00 am to 11.00 am



Course Summary

The purpose of this award is to equip the learner with the knowledge, skill and competence to skillfully lead self and other people in work-related tasks and activities, in a paid or voluntary capacity. This course will lead to a minor award at NFQ Level 5 in Leadership (6N2191).

Who Should Apply?

This module offers participants a chance to study at the Teagasc College, National Botanic Gardens. By taking other Level 5 modules, students may be able to build towards a full award of QQI Certificate in Horticulture.

Module Content

- Analyze the evolving role of leadership over time, to include current and past examples of good leadership and its impact on the turn of events
- Evaluate leadership styles and approaches in a range of public and private contexts, to include leadership dilemmas, the need for leadership in all aspects of life, and the impact of personal and public ethics, morals and values.
- Draw up a personal leadership plan for a task, project or job, to include oral presentations, listening skills, making suggestions and giving feedback, written documents and correspondence.
- Demonstrate problem-solving skills, to include strategic analysis of issues or problems, action plans, execution of plans and evaluation of outcomes.
- Manage projects and tasks to include working with a team on a practical project or task that result in effective team performance.
- Handle group dynamics, to include facilitating the different roles that people play, conflict resolution, interacting with people who have diverse views and styles, teamwork and motivating others.
- Conduct meetings efficiently, to include use of appropriate meeting etiquette, procedures and processes in a particular public, private or voluntary context.
- Demonstrate leadership skills in a chosen environment, to include reflection on personal experience and progress.

Duration

The course will be offered in one 2 hour session per week over a 25 week period commencing in early September and running through to mid-May. Students will be required to undertake class work and group activities surrounding leadership events and learner records. Assessment will be by the completion of a learner record and skills assessment.

CREDITS	15
COST	€240.00
VENUE	Botanics
DATES	November to March
DAY/TIME	Thursday 2.30 pm to 4.30 pm

Landscape Construction & Maintenance (5N1908)



Course Summary

The QQIIevel 5 component award in Landscape Construction and Maintenance willequipthelearnerwith the knowledge, skill and competence to plan, construct and maintain hard and soft landscape features. This course will lead to a minor award at NFQ Level 5 in Landscape Construction and Maintenance (5N1908).

Who Should Apply?

This course is designed for anyone interested or involved in planning and building of gardens or the care of plants. It is also suited for people who are currently pursuing careers in the landscape sector or for those who feel that they would like to explore this particular area of horticulture. This module offers participants a chance to study at the Teagasc College, National Botanic Gardens. By taking other Level 5 modules, students may be able to build towards a full award of QQI Certificate in Horticulture.

Module Content

On completion of this module, students will be able to:

- Describe structural components and construction details
- Demonstrate pre-building skills using safe work practices
- Construct hard landscape features
- Plant a range of plants from plans
- Establish a lawn using seed and turf
- Devise an annual landscape maintenance programme

Duration

The course will be offered in one day per week over a 15 week period commencing in early September and running through to mid-December. Each session will comprise of hands-on practical / demonstration exercises. Skills learned throughout the year will be assessed at regular intervals. Students will be provided with appropriate PPE but will be required to have safety boots and appropriate work trousers for each of the practical / demonstration session. Check with College for availability each year.

CREDITS	15
COST	€240.00
VENUE	Ashtown
DATES	September to December
DAY/TIME	Monday 9.00 am to 3.30 pm

Plant Identification & Use (5N2527)



Course Summary

The QQI level 5 component award in Plant Identification and Use will equip the learner with the knowledge, skill and competence to identify a wide range of plants, their characteristics and their uses in different horticultural situations. This course will lead to a minor award at NFQ Level 5 in Plant Identification and Use (5N2527).

Who Should Apply?

This course is designed for anyone who wants to get involved in horticulture on a part-time basis while gaining an approved Level 5 minor award and for people who are currently working in other careers but who feel that they have always wanted to learn more about horticulture. This module offers participants a chance to study at the Teagasc College, National Botanic Gardens. By taking other Level 5 modules, students may be able to build towards a full award of QQI Certificate in Horticulture.

Module Content

On completion of this module, students will be able to:

- Explain the binomial plant nomenclature system
- Explain technical plant terminology
- Identify a range of common plants at different stages
- Select suitable plants for different planting situations
- Plant a range of plants using safe working practices

Duration

The course will be offered on Thursdays 2-3 hours each day over a 25 week period commencing in early September and running through to mid-March. Students will be required to undertake plant identification, select plants for a range of different planting situations and plant a range of plants according to accepted codes of practice and with regards to using safe working practices. Check with College for availability each year.

CREDITS	10
COST	€180.00
VENUE	Ashtown
DATES	September to March
DAY/TIME	Sept to Oct. Thursday 11:30 to 4:30
	Nov to March Thursday 11:30 to 2:30



Course Summary

The QQI level 5 component award in Plant Propagation will equip the learner with the knowledge, skill and competence for the propagation of a wide range of plants. This course will lead to a minor award at NFQ Level 5 in Plant Propagation (5N2547).

Who Should Apply?

This course is designed for anyone who wants to get involved in horticulture on a part-time basis while gaining an approved Level 5 minor award and for people who are currently working in other careers but who feel that they have always wanted to learn more about this very important aspect of horticulture. This module offers participants a chance to study at the Teagasc College, National Botanic Gardens. By taking other Level 5 modules, students may be able to build towards a full award of QQI Certificate in Horticulture.

Module Content

On completion of this module, students will be able to:

- Outline the principles of plant propagation
- Outline the principles of division and layering
- Outline the principles of grafting
- Outline the principles of propagation from seed
- Describe the basic requirements for rooting cuttings
- Describe different systems used for cutting propagation
- Take a range of cuttings
- Prepare and sow seed
- Carry out routine division and layering
- Carry out bench grafting

Duration

The course will be offered in one 3 hour session per week over a 25 week period commencing in early September and running through to mid-March. Students will be required to take cuttings, prepare seed for sowing and carry out routine division and layering using safe work practices in the National Botanic Gardens. Skills learned during the course will be assessed regularly by College personnel.

CREDITS	15
COST	€240.00
VENUE	Botanics
DATES	September to March
DAY/TIME	Wednesday 9.00 am to 12.30 pm

Plant Protection (5N2546)



Course Summary

The QQI level 5 component award in Plant Protection will equip the learner with the knowledge, skill and competence to protect plants and horticultural crops from harmful effects of weeds, pests and diseases and to select appropriate, safe and sustainable control measures. This course will lead to a minor award at NFQ Level 5 in Plant Protection (5N2546).

Who Should Apply?

This course is designed for anyone involved in the management and care of plants. It is suited for people who are currently pursuing careers in all of the various horticultural sectors or for those who feel they would like to explore this particular area of horticulture. This module offers participants a chance to study at the Teagasc College, National Botanic Gardens. By taking other Level 5 modules, students may be able to build towards a full award of QQI Certificate in Horticulture.

Note: On successful completion of this course, students will be fully qualified under DAFM Sustainable Use of Pesticides (SUD) legislation.

Module Content

On completion of this module, students will be able to:

- Describe the characteristics of common pest and disease-causing agents
- Review the effects, reproduction, spread and control of weeds
- Describe the range, formulations and uses of pesticides in horticulture
- Describe pest and disease control measures and legislative control practices
- Identify a range of horticulture pests and diseases
- Apply pesticides correctly with a knapsack sprayer

Duration

The course will be offered in one 3 hour session per week over a 25 week period commencing in early September and running through to mid-March. Each session will comprise of a period of lectures and a practical / demonstration session. Skills learned throughout the course will be assessed at regular intervals. Two short theory exams will be offered in December and again in May. Students will be provided with appropriate PPE but will be required to have safety boots and appropriate work trousers for each of the practical / demonstration session. Check with College for availability each year.

CREDITS	15
COST	€240.00
VENUE	Ashtown
DATES	September to March
DAY/TIME	Friday 9.00 to 12.30 pm

Organic Production (5N2549)



Course Summary

This QQI Level 5 Component Award in Organic Crop Production will equip the learner with the knowledge, skill and competence to practice organic crop production to approved organic standards in compliance with the EU and Irish regulations and legislation. This course will lead to a minor award at NFQ Level 5 in Organic Production (5N2549).

Who Should Apply?

This course is designed for anyone who wants to deepen their knowledge of the production of organic crops or for those who just have a general interest in horticulture.

This module will be delivered at the college campus at Teagasc Ashtown in Dublin 15. Blended learning options will be available for virtual engagement of classroom teaching sessions. Practical's in all sessions must be attended for training and assessment.

Module Content

On completion of this module, students will be able to:

- Source organic input materials
- Examine markets and marketing of organic crops
- Design an organic crop rotation plan
- Compile a production programme for Fruit & Veg
- Produce an organic crop from propagation to point of sale.

Duration

The course will be offered one day per week over a 15 week period commencing in September and running through to December. Students will be required to perform a range of operations that are appropriate to organic crop production using safe work practices in Teagasc Ashtown. Skills learned during the course will be assessed regularly by college personnel. Check with college for availability each year.

CREDITS	15
COST	€240.00
VENUE	Ashtown
DATES	September to December
DAY/TIME	Tuesday 9.00 am to 3.30 pm



About this Course

The purpose of this award is to equip the learner with the knowledge skill and competence to work in an organization or specific vocational context, carrying out vocationally related tasks over a period of time, independently while under general supervision. This course will lead to a minor award at NFQ Level 5 in Work Practice (5N1433).

Who should apply?

This module offers participants a chance to complete work practice with Teagasc approved horticultural hosts. Work practice is a mandatory module at Level 5. Learners must complete 40 days of work practice, some of which will be in the Botanic Gardens and the remainder with an external host. This module is worth 15 credits which can be counted towards further studies at Level 5.

Module Content

On completion of this module, students will be able to:

- Summarize the distinguishing features of the organization, institution or horticultural host
- Comment on current issues, challenges and trends
- summarize legislation and regulations relevant to the workplace
- Explain internal and external procedures pertinent to learner role
- Work independently and professionally, complete a minimum of 40 days work practice on a Teagasc approved centre.
- Select information required for a range of work-based tasks
- Contribute positively as a member of an organization or team
- Review personal and professional learning.

CREDITS	15
COST	€240.00
VENUE	PLP Host
DATES	March/April
DAY/TIME	8 Week Block





HOW TO ACHIEVE A FULL LEVEL 5 QQI IN HORTICULTURE

To achieve a full level 5 award in Horticulture a student needs to obtain 120 credits (see table below).

A STUDENT MUST COMPLETE ALL MANDATORY MODULES AND ONE ELECTIVE CHOICE.

If you choose to study additional elective subject's additional fees will apply. Please refer to the Component Level 5 General Information for 2022-23 for module fees.

MANDATORY SUBJECTS (Total Credits Required = 105)		
QQI Code	Subjects	Credits
5N2546	Plant Protection	15
5N2528	Plant Science	10
5N2527	Plant ID and Use	10
5N2530	Soil Science and Growing Media	10
5N1433	Work Practice (8 week block, Spring 2022)	15
6N2191	Leadership	15
5N2547	Plant Propagation	15
5N2559	Horticultural Mechanisation	15
ELECTIVE SUBJECTS (Total Credits Required = 15) Please choose ONE subjects from the elective list below		
QQI Code	Subjects	Credits
5N1908	Landscape Construction and Maintenance Day: Monday Duration: Sept - Dec	15
5N2549	Organic Production Day: Tuesday Duration: Sept - Dec	15
5N2553	Biodiversity and the Natural Environment Day: Monday Duration: Sept - Dec	15