



Royal
Botanic Garden
Edinburgh

Certificate in Practical Horticulture (CPH)

Applicants' Handbook
Glasgow Botanic Gardens



eden project



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1. Course Overview

The *RBGE (Royal Botanic Gardens Edinburgh) Certificate in Practical Horticulture (CPH)* is for anyone who wants to acquire the fundamental practical skills of a horticulturist. There are many courses that teach horticultural theory, but this formal 10-day course (eight full-day taught units plus assessment), structured within a standard framework, focuses on the practical skills, taught by experienced and enthusiastic horticulturists. There is some theory provided to aid your understanding (in the form of short, highly visual presentations), but the course is designed to be delivered and assessed using a predominantly *practical* approach. Therefore for the majority of your time in the classes you will be “*doing stuff*” and will be getting “*dirty hands!*”

The CPH is a formal qualification and students must therefore pass the assessment to achieve the award. A *practical exam* at the end of the program forms the bulk of the assessment marks, but students are also required to show they understand the key points. This is done as quizzes on PropaGate, RBGE’s Virtual Learning Environment (VLE). Students are also expected to practice their practical skills in their own time in addition to the formal classes, in order to prepare for the practical exam.

The CPH is endorsed by Botanic Gardens Conservation International (BGCI - who are the global organisation for botanic gardens) and is supported by the UK Stanley Smith Horticultural Trust, which is funding the development of delivery and support materials to facilitate the course being taught in a range of locations.

As well as in Edinburgh, the CPH is also delivered by partner centres supported and validated by RBGE. These include here at the Glasgow Botanic Gardens, the Eden Project in Cornwall and the Nezahat Gökyiğit Botanic Garden in Istanbul, Turkey. RBGE staff are also delivering the CPH in countries as diverse as Oman and Laos, as part of their global capacity building and conservation programmes.

The course at the Glasgow Botanic Gardens is supported by the Friends of Glasgow Botanic Gardens. The Lead Tutor for the course is Paul Matthews, the Gardens’ former Curator. Lisa Swift is the Assistant Tutor and can be contacted via email if you have any queries about the course: cphglasgow@gmail.com



2. Course Structure

The Glasgow CPH is a 10 week course delivered at the weekend over a 2-3 month period. Students who attend all the units and successfully complete the assessments are awarded the RBGE Certificate in Practical Horticulture.

Sessions start at 9.30am and finish at 4.30pm, with a break for lunch.

Course sessions

CPH01 Looking at Plants

CPH02 Soil Care

CPH03 Feeding and Watering

CPH04 Seed Propagation

CPH05 Vegetative Propagation

CPH06 Growing Media and Potting

CPH07 Planting

CPH08 Pruning and Training

Revision Session

Assessment

3. Course Fees

The cost for the course is £500. A deposit of £50 is payable on acceptance of a place and full payment for the course is required before the course starts.

4. Application process

Candidates will be selected on the basis of the answers given to the questions on the application form on the Friends of Glasgow Botanic Gardens website.

<http://www.glasgowbotanicgardens.com/education/certificate-in-practical-horticulture/>

You will receive a response within 2 weeks of applying. You may be added to a waiting list if the course is over subscribed.

5. Assessment Methods

This is a predominantly practical course, designed to assess a practical level of understanding and competence. Candidates will be assessed in two ways:

5.1 Practical Exam (80%)

Students are required to undertake a full day practical exam at the end of the course, which covers elements of all eight units studied within the programme. This practical exam will include some oral questioning and identification tests but the bulk of the assessment will be tasks requiring the application of the practical horticultural skills developed during the course.

You are expected to show a significant level of competence in the practical test and are therefore recommended to spend some time outside the course to practice all the skills learnt, prior to the final assessment. You must pass the practical exam in order to pass the exam overall.

5.2 Course theory (20% of assessment marks)

There is a small theory element to the assessment, to show you have understood the key points. This will be in the form of online quizzes. The online quizzes will be available after each class and need to be completed before the practical exam.

You are encouraged to take photographs, notes and make sketches during the class as this will help you to complete the worksheets and help you to revise for the practical exam.

5.3 Certification & Grading

Successful candidates will be awarded the '*RBGE Certificate in Practical Horticulture*', which will be graded as follows:

- Pass: 60%
- Merit: 75%
- Distinction: 85%

NB: If you gain less than 50% in any unit you will need to re-sit the unit. To gain a Distinction you must Pass (60%) every unit.

6. Equipment Required

This is a practical course so each module will involve indoor and outdoor work. Each week you will need to bring:

- Appropriate outdoor clothes (even indoor workstations can be cold)
- Gardening gloves
- Steel toe-capped work boots
- Bypass Secateurs
- Packed lunch

Please get in touch if you need advice you on where to purchase these items.

7. PropaGate Learning

Propagate Learning is a website that you log into in order to access your course. It's a place for learning and for discussing topics and progress with your tutors and other students. Propagate Learning allows you to study from home, whilst becoming part of a thriving and enthusiastic learning community.

As a student on the CPH, you will have access to this resource, which contains a wide range of learning materials to support your study, including links to useful websites, a discussion form and videos. The teaching resources will be made available to you before each class and you will be able to complete the assessments online at your leisure.

8. Accessibility

Some of the units require a certain amount of physical activity. Please contact us if you have any concerns about this so that we can make any arrangements if necessary. Having spoken to you they may unfortunately suggest the course is not suitable for you.

9. Attendance and procedure if you miss a class

As this is a practical course, all students who wish to sit the practical exam must attend all of the classes to be eligible for the exam (the Revision Day is optional but strongly recommended). If you miss a class or are unable to attend you need to let us know as soon as you possibly can. It may be possible to make arrangements for you to catch up, but there may be a fee charged for this. If you are unable to attend a class or miss a class, please email cphglasgow@gmail.com in the first instance.

10. Unit Descriptors & Common Themes

Descriptors for all units are on the following pages. Each descriptor states the:

- Learning Objectives.
- Key Knowledge and Practical Activities to be covered during the unit.
- Assessment guidelines.

The following themes will be considered throughout all the modules.

- Health and safety issues
- Environmental and sustainability issues
- Tools and equipment, maintenance and use
- Plant identification
- Plant pests and diseases
- Sourcing information
- Record keeping

Unit Number: CPH-01
Unit Title: Looking at Plants

Learning Aim:

Gain an overview of plants, how they are named.

Learning Objectives:

After completing this unit, the students will be able to:

- Name basic plant structures and state their functions.
- State the basics of plant lifecycles (i.e. annual, biennial and perennial).
- Use botanical plant names.

Assessment:

- Plant identification: 10 plants from the list of 20 provided to students.
- Correction of incorrectly written botanical plant names (i.e. format not spelling).
- Completed the online quiz.

Unit Number: CPH-02

Unit Title: Soil Care

Learning Aim:

Gain an understanding of the principles and practices of looking after the soil.

Learning Objectives:

After completing this unit, the students will be able to:

- Evaluate soil structure & texture.
- Determine soil pH.
- Carry out primary soil cultivation (i.e. digging).
- Apply and/or incorporate organic matter to the soil.
- Carry out secondary cultivation (i.e. forking, hoeing & raking).
- Remove weeds and prevent weed re-growth
- Select the correct tools for cultivating soil.
- Maintenance of tools (including sharpening & cleaning).

Assessment:

- Primary and secondary cultivation of an area of soil, including weed removal.
- Completed the online quiz.

Unit Number: CPH-03
Unit Title: Feeding & Watering

Learning Aim:

Gain an understanding of the principles and practices of feeding & watering plants.

Learning Objectives:

After completing this unit, the students will be able to:

- State fertilizer types and application methods.
- Identify a range of irrigation equipment.
- Calculate fertilizer application rates, using step- by- step worksheets.
- Apply both liquid and granular fertilizer.
- Assess the irrigation needs of plants using appropriate irrigation terminology.
- Irrigate plants using a watering can and a hosepipe.

Assessment:

- Work out the correct amount of fertiliser to apply to a batch of plants/an area using the worksheets.
- Select and apply liquid or granular fertilizer to plants either in the ground or in containers.
- Assess the irrigation requirements of a batch of plants, irrigate as appropriate.
- Completed the online quiz.

Unit Number: CPH-04
Unit Title: Seed Propagation

Learning Aim:

Gain an understanding of the principles and practices of seed propagation.

Learning Objectives:

After completing this unit, the students will be able to:

- State the advantages and disadvantages of seed propagation.
- List the key environmental storage factors that affect seed viability.
- Prepare an outdoor soil seedbed.
- Flat drill & v-drill and direct drill sow seeds in the prepared soil bed.
- Correctly fill & prepare containers with seed sowing media.
- Broadcast & space sow seeds in the filled containers.
- Label & water all sown seeds.

Assessment:

- Prepare an outdoor seedbed.
- Sow seeds both by space sowing and broadcast methods in either containers or outdoor seedbed.
- Seeds must be covered, labelled and watered if appropriate.
- Completed the online quiz.

Unit Number: CPH-05

Unit Title: Vegetative Propagation

Learning Aim:

Gain an understanding of the principles and practices of vegetative propagation.

Learning Objectives:

After completing this unit, the students will be able to:

- State the advantages and disadvantages of vegetative propagation.
- State the different methods of vegetative propagation.
- Select appropriate vegetative propagation material.
- Collect, prepare & insert a range of cuttings.
- State the factors important in the propagation environment (inc. media).
- Carry out the aftercare of propagated material (inc. labelling and watering).
- Divide herbaceous plants.

Assessment:

- Propagate two different plants. At least one of these must be by cuttings.
- Collect, prepare and insert the vegetative material. Labelling must be carried out correctly.
- Completed the online quiz.

Unit Number: CPH-06
Unit Title: Growing Media & Potting

Learning Aim:

Gain an understanding of the principles and practices growing plants in pots and different growing media.

Learning Objectives:

After completing this unit, the students will be able to:

- State the reasons for growing plants in containers.
- Select appropriate pots for a range of different plants.
- Identify the properties of a range of different growing media ingredients.
- Mix a batch of growing media.
- Prick-out seedlings into small pots.
- Pot-on plants into a larger pot size.
- Demonstrate potting correctly in relation to depth of plant, level of growing media, positioning of plant in centre of pot and firmness of media.
- Carry out the immediate aftercare of plants that have been potted e.g. standing down and irrigating.

Assessment:

- Decide if plants need to be potted and choose appropriate containers for them.
- 'Prick-out' and/or 'pot-on' a batch of plants.
- Irrigate the batch of plants using a watering can or hosepipe.
- Completed the online quiz.

Unit Number: CPH-07

Unit Title: Planting

Learning Aim:

Gain an understanding of the principles and methods of planting plants in soil.

Learning Objectives:

After completing this unit, the students will be able to:

- State planting techniques for a range of different types and sizes of plants.
- State a range of tree support mechanisms and when to use them.
- State the reasons for using mulches & a range of materials that can be used.
- Prepare & mark out an area for planting
- Plant out the area with small plants following a given plan.
- Demonstrate the planting and support of a standard sized tree
- Water & mulch post-planting.
- Select & maintain tools.

Assessment:

- Plant an individual specimen tree or large shrub, involving the use of a support mechanism, or plant out a number of small plants following a given plan.
- Completed the online quiz.

Unit Number: CPH-08
Unit Title: Pruning & Training

Learning Aim:

Gain an understanding of the principles of pruning and training plants

Learning Objectives:

After completing this unit, the students will be able to:

- List the reasons for pruning and training plants.
- Describe alternate methods for pruning and training plants.
- Clean and sharpen bypass secateurs.
- Use secateurs to prune plants correctly.
- Use a hand saw to carry out 3-point pruning to remove thicker branches.
- Select correct tools and materials for pruning and training.
- Tie plants to canes or other support structures.

Assessment:

- Carry out the appropriate training and pruning of a given plant(s).
- Completed the online quiz.