



Royal
Botanic Garden
Edinburgh

RBGE Certificate in Practical Horticulture 2019-20



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1. Course Overview

The *RBGE 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 either as a notebook which is a record of their classes, or as worksheets with questions or as quizzes on PropaGate, RBGE’s Online Learning Environment*. 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 the Eden Project in Cornwall and the Nezahat Gökyiğit Botanic Garden in Istanbul, Turkey, Waterperry Gardens in England, Glasgow Botanic Gardens in Scotland and Bute Produce on Bute, Scotland. 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.

(* depending on the preference of the centre where the course is being offered)



2. Course Structure and Dates

Option 1 Summer School July 2019

The CPH programme will be delivered at RBGE as a ten day block practical course over two weeks, with the assessment on the final Saturday. The days run from 9.30am to 4.30pm. Students who attend all eight units and successfully complete the assessments are awarded the RBGE Certificate in Practical Horticulture.

| Unit Number | Unit Title | Date |
|-------------|-------------------------|----------------------------------|
| CPH-01 | Looking at Plants | Mon 15 th July 2019 |
| CPH-02 | Soil Care | Tue 16 th July 2019 |
| CPH-03 | Feeding & Watering | Wed 17 th July 2019 |
| No class | Study Time | Thurs 18 th July 2019 |
| CPH-04 | Seed Propagation | Fri 19 th July 2019 |
| CPH-05 | Vegetative Propagation | Sat 20 th July 2019 |
| CPH-06 | Growing Media & Potting | Sun 21 st July 2019 |
| No class | Study Time | Mon 22 nd July 2019 |
| CPH-07 | Planting | Tue 23 rd July 2019 |
| CPH-08 | Pruning & Training | Wed 24 th July 2019 |
| CPH-R | Revision Day | Thurs 25 th July 2019 |
| No class | Study Time | Fri 26 th July 2019 |
| CPH-A | Assessment Day | Sat 27 th July 2019 |

**Practical exam resit day: Sunday 28th July 2020.*

September 2019 to June 2020

The CPH programme is delivered at RBGE but spread out from September 2019 – June 2020. The individual units take place on Saturday or Sunday from 9.30am – 4.30pm and take place at RBGE. Students who attend all eight units and complete the assessment are awarded the RBGE Certificate in Practical Horticulture. Please note you will not be able to swap between the two courses.

| Unit Number | Unit Title | Saturday Sessions | Sunday Sessions |
|-------------|-------------------------|---------------------------------|---------------------------------|
| CPH-01 | Looking at Plants | 31 st August 2019 | 1 st September 2019 |
| CPH-02 | Soil Care | 21 st September 2019 | 22 nd September 2019 |
| CPH-03 | Feeding and Watering | 5 th October 2019 | 6 th October 2019 |
| CPH-07 | Planting | 26 th October 2019 | 27 th October 2019 |
| CPH-08 | Pruning & Training | 7 th March 2020 | 8 th March 2020 |
| CPH-04 | Seed Propagation | 28 th March 2020 | 29 th March 2020 |
| CPH-06 | Growing Media & Potting | 25 th April 2020 | 26 th April 2020 |
| CPH-05 | Vegetative Propagation | 16 th May 2020 | 17 th May 2020 |
| CPH-R | Revision Day | 13 th June 2020 | 14 th June 2020 |
| CPH-A | Assessment Day | 27 th June 2020 | 28 th June 2020 |

**Practical exam resit day: Sunday 28th July 2020.*

(Please note the classes are not taught in numeric order, they are matched to the growing season.)

3. 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:

3.1 Practical Exam (80% of assessment marks)

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. The practical exam will include an identification test 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 practicing all the skills learnt, prior to the final assessment. You must pass the practical exam to be awarded the certificate.

3.2 Course Notes (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 quizzes on our online Learning Environment or worksheets. The worksheets should be completed and handed in to the course tutor on the day of the practical exam, before the practical exam begins. The worksheets will be marked and returned to you when you get your results. 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.

3.3 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.

4. Course Fees

The cost for the course is £600. Full payment for the course is required on acceptance of a place.

5. Application Procedure

Candidates will be selected on the basis of the answers given to the questions on the application form at the back of the handbook. Please complete and return the form to us by:

- Monday 3rd June 2019 for Summer School Applications
- Friday 19th July 2019 for September – June Applications

PLEASE NOTE: you must apply using the application form at the back of this handbook. Applications using the short course booking form at the back of the Adult Education Programme will not be considered.

Applicants will be notified if their application has been successful or not within 2 weeks of the application deadline date.

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).
- Steel toe-capped work boots.
- Packed lunch (tea and coffee will be provided).
- Bypass Secateurs.

Once you are accepted on the course we can advise you about what to buy and where to buy these items.

7. PropaGate Learning

PropaGate Learning is a website that you log into in order to access your course. It is 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 forum and videos. The teaching resources will be made available to you before each class and you will be able to complete the online assessments after the class, 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 we may unfortunately suggest the course is not suitable for you.

Courses at RBGE are taught in the RBGE Nursery and the main garden. The RBGE Nursery is on Inverleith Avenue South (off Inverleith Place). There are accessible toilets in all locations.

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 (though the Review Day is optional but strongly recommended). If you miss a class or are unable to attend you need to tell us as soon as you possible. Unfortunately you will not be able to join the other group on the Saturday or the Sunday, except under exceptional circumstances and by prior arrangement with RBGE. It may be possible to arrange for a catch up day, though there would be a fee of £125* for this.

If you are unable to attend a class or miss a class, please contact the Education Office in the first instance. Contact details are 0131 248 2937 email: education@rbge.org.uk

*If more than one student is attending the catch up day this fee will be reduced accordingly.

10. Unit Descriptors

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

- Learning Aim
- Learning Objectives
- Assessment guidelines

The following themes will be considered throughout all the units.

- Health and safety
- 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 and how they are named.

Learning Objectives:

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

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

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 online quiz or worksheets.

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.
- Cultivate soil by digging and forking
- Apply and/or incorporate organic matter to the soil.
- Remove weeds and prevent weed re-growth.
- Select the correct tools for cultivating soil.
- Maintenance of tools (including sharpening & cleaning).

Assessment:

- Digging and/or forking of an area of soil, including weed removal.
- Maintenance of tools.
- Completed online quiz or worksheets.

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 online quiz or worksheets.

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.
- Clean seed prior to sowing.
- 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 online quiz or worksheets.

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 online quiz or worksheets.

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.
- State how to 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 online quiz or worksheets.

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 online quiz or worksheets.

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 online quiz or worksheets.



Application Form

RBGE Certificate in Practical Horticulture (CERT PH)

Please send your completed form to:

Education Administrator (Cert PH)
Royal Botanic Garden Edinburgh
20a Inverleith Row
Edinburgh
EH3 5LR

Candidates will be selected on the basis of the answers given to the questions below. Please complete and return this form to us by Monday 3rd June 2019 (summer course) or Friday 19th July 2019 (Sept - June course).

1. Personal Details

Title Mr / Mrs / Ms / Miss / Dr / Other _____

Name: _____

Contact Numbers:

Address: _____

Daytime: _____

Evening: _____

Nationality: _____

Mobile: _____

Email Address

Reasons for applying for this course?

Existing Qualifications & Experience (in brief)

Where did you hear about this course?

Do you have any additional support needs? Please give details.

2. Course Options

Please select the course you wish to apply for.

First Choice:

- Summer School Course
- Saturday Course
- Sunday Course

Second Choice:

- Summer School Course
- Saturday Course
- Sunday Course

Payment:

Please do not send any money with this form, you will be asked for payment when you are offered a place on the course.

For office use only:

| | | | | | |
|---------------------------|----------|-------|------------------|----------|-------|
| Date application received | | | Reference Number | | |
| Offered place | Yes / No | Date: | Place accepted | Yes / No | Date: |