



Foundation in Horticulture Certificate

Course Guide



Foundation in Horticulture Certificate

Turn your love for gardening into a career

Learn how to identify, cultivate and grow a wide variety of different plants. The course is an ideal introduction to plant education and provides a solid foundation to expand your knowledge and skills.

Study the science that underpins horticulture and gain insights into different areas within the profession. Everyone working in horticulture is expected to have a broad knowledge of plants and how to use them in different garden and environmental settings.

This course is a great fit for people who are interested in starting a career in horticulture, working in a garden centre, a gardening business or plant production.

Garden enthusiasts will also benefit from broadening their knowledge and learning better ways to manage and improve their own gardens.

**Perfect for
anyone who has a
passion for plants,
gardens, nurseries
and protected
environments**





About us

Careers Collectiv is about practical education with a focus on providing courses relevant to real life.

We help you gain the knowledge, skills and confidence to try a new career path, broaden your professional development, start a new business or explore a passion and deepen your understanding in a special interest.

Careers Collectiv was founded by a family who are passionate about providing quality education, accessibility for everyone and the flexibility to work at your own pace and in your own time. They have over a decade of experience in the online education sector after establishing a college specialising in the beauty industry.

Our teachers

We only use teachers who are active in their specialised industry. Learn from people who have first-hand experience in their subject matter and current industry expertise. Staff come from varied backgrounds with teaching and vocational experience from universities and vocational colleges.

Courses provide flexible options for different career pathways, self-improvement, professional development and general adult education.

We give our students the skills, tools and structure to learn in real life situations without compromising on academic excellence.



Recognition



All Careers Collectiv courses come with a certificate of attainment upon completion. This certificate is recognised by the Australian Institute of Horticulture Inc.

Our courses are accredited with the International Approval and Registration Centre (IARC), a non-profit association providing a quality control system for education programs and courses in international education.



Foundation in Horticulture Certificate

Grow a career in gardening, cultivating and caring for plants

This course will build your foundation knowledge about horticulture and the key concepts that you need before you can branch out into more specialised areas that interest you.

This certificate is made up of two in-depth modules which will give you the sound footing in horticultural studies as well as a range of electives that will allow you to further advance your understanding of horticulture and stand out against others in the industry.

Who is the course for?

This course is designed for students with no previous experience in horticulture or keen gardeners and hobbyists looking to develop their skills and knowledge of gardening and plant care. It's perfect for anyone who is passionate about gardening, and who want to further their skills to open up for career opportunities in the horticultural sector.



3 modules



300 hours

This course has 2 main core modules

- Foundation in Horticulture
 - Horticulture
- + 1 free specialist module of your choice is included as a part of this course





Learn from experts in their field who guide you to see, do, think and experience learning on your own terms and at your own pace.

A well rounded learning experience

The Foundation in Horticulture Certificate gives you a sound foundation in the skill set and knowledge expected in a horticultural worker.

This course provides the tools you need to keep plants healthy, prevent and treat pests and diseases, maintain a nurturing environment and understand professional industry practices and principles.

Included in the course is a free elective module where you can choose an area of horticulture to broaden your expertise and gain a more holistic education that will help kickstart your career.

Assignments

Each lesson in your course modules culminate in an assignment which is submitted online, marked by the school's tutors and returned to you with suggestions and feedback.

Career prospects

This course opens up different opportunities in horticulture.

They include work in:

- Garden maintenance
- Retail nurseries
- Wholesale nurseries
- Garden centres
- General horticulture
- Landscaping business
- Parks and reserves



Course modules

Foundation in Horticulture

1 The Plant Kingdom (Part A)

- The classification and taxonomic hierarchy of seed-bearing plants
- The use of botanical keys to identify plants
- Stages of plant growth and life cycles
- The structure and function of plant cells and tissues
- The processes of meiosis and mitosis
- The differences in the external and internal structure of monocotyledons and dicotyledons.

2 The Plant Kingdom (Part B)

- The identification and function of the external vegetative parts of higher plants: roots, leaves, stems and buds
- The identification and function of flowers
- The identification and function of fruits and seed.

3 The Plant Kingdom (Part C)

- The importance of photosynthesis and respiration
- Transpiration and translocation of water throughout the plant
- Pollination and fertilisation
- Seed formation and germination
- Growth regulation including phototropism and photoperiodism.

4 Plant Propagation

- How to differentiate between plants

produced by seed (sexual) and plants produced by vegetative propagation methods (asexual)

- Seed propagation
- Cutting propagation
- Propagation aftercare
- Layering
- Propagation tools
- Grafting
- Propagating plants in a greenhouse

5 Outdoor Food Production

- Growing outdoor food crops
- Timing crops
- Making gardens more productive
- Sustainable land management
- Composting
- Companion planting
- Vegetable cropping
- Fruit crops
- Pests and diseases of crops
- Windbreaks
- Crop harvesting

6 Garden Planning

- Collecting pre-planning information
- Preparing landscape plans
- The principles, elements and procedures of landscape design
- Creating landscape effects
- Using hard and soft landscaping materials.

Foundation in Horticulture (Continued)

7 The Root Environment and Plant Nutrition

- The physical properties of soil
- Techniques for improving soil
- The importance of organic matter in the soil
- Soil water
- Watering systems
- Drainage systems
- Soil pH
- Carbon and nitrogen cycles
- Soil nutrients and their effect on plant growth
- Fertilisers
- Properties of growing media

8 Protected Cultivation

- Greenhouse types and shade houses
- Environmental controls in protected environments
- Irrigation and nutrition control
- Containers and growing media in protected environments
- Care and display of indoor plants
- Production of selected crops in protected cultivation (tomato, lettuce, begonia, rose)

9 Horticultural Plant Selection, Establishment and Maintenance

- The selection of plants for different purposes
- Guidelines for selecting plants
- Environmental factors affecting plant selection
- Selecting particular plants (which ones to buy)
- Planting techniques
- Selection, establishment and maintenance of turf, annuals, herbaceous plants, shrubs, trees, hedging plants and climbing plants
- Pruning in the home garden
- Mulching

10 Horticultural Plant Health Problems

- Plant problems and their identification
- Pests
- Diseases
- Environmental problems
- Chemicals and their use
- Non-chemical controls
- Weed problems and their identification control





Horticulture

1 Plant identification

- Naming plants
- Distinguishing the taxonomic divisions of plants including family, genus, species and variety or hybrid
- Monocotyledons and Dicotyledons
- Characteristics of botanical families
- Structure and arrangement of leaves and leaflets
- Leaf terminology
- Leaf arrangements
- Flower structure and identifying the different parts of a flower
- How seeds form
- Plant reviews
- Collecting and pressing plants for herbaria

2 Planting

- Garden terminology
- Common garden problems
- Basic planting procedure
- Fertilising and staking when planting
- Dealing with bare rooted plants
- Time of planting
- Deciding where to plant
- Mulching
- Making garden beds
- Raised beds
- Sunken beds

3 Planting terminology

- Recognising plant families and identifying plants
- Becoming familiar with plant families
- Botanical Latin
- Systematic examination of plants - dicot or monocot, type of wood, etc
- Characteristics of important families including:

Amaryllidaceae, Araceae, Asteraceae, Ericaceae, Lamiaceae, Fabaceae.

- Getting to know more common families
- Other ways to identify plants
- Plants for shade
- Plants for exposed conditions
- Plants for inner-city gardens

4. Soils

- Purpose of soil
- Soil structure: classifying soils
- Soil water and air
- Soil temperature
- Soil pH
- Nutrient availability
- Naming a soil
- Improving soils
- Composting
- Natural plant foods
- Sampling and testing soils
- Potting soil mixes
- Soil terminology

5 Plant nutrition

- The nutrient elements
- Major elements
- Minor elements
- Diagnosis of nutrient problems
- Fertilizers: nitrogen, phosphorus, potassium
- How much fertilizer to apply
- Terminology

6 Water management

- Introduction to irrigation
- Feasibility of irrigation
- Soil and water
- When to irrigate
- Water deficiency symptoms

Horticulture (Continued)

- Types of soil moisture; gravitational, capillary, hygroscopic
- Measuring water available to plants
- Rooting depths of plants
- Estimating water requirements
- Pumps, sprinklers and other equipment
- Understanding hydraulics
- Conventional sprinkler systems; portable, permanent, semi permanent
- Cyclic watering
- Pulse watering
- Irrigation scheduling
- Sprinkler spacing
- Improving soils for water management
- Drainage
- Erosion management
- Soil compaction
- Acidification

7 Garden maintenance and weeds

- Cost of garden maintenance
- Machinery
- Comparing more and less costly areas of the garden.
- Common weeds and their identification
- Weed control methods - chemical and non-chemical
- Plants that become invasive
- Environmental weeds

8 Pests and diseases

- Pest and disease overview
- Preventative measures for managing pest and disease
- Review of major pest problems and control options: Aphids, Borers, Caterpillar, Leaf Miner, Mealy Bug, Red Spider, Scale, etc
- Review of major diseases and their control: Anthracnose, Black Leg, Rots, Botrytis, Damping off, Die back, Mildew, Rust etc.
- Diagnosis of problems
- Introduction to plant pathology and entomology
- Chemical pesticides and basic toxicology

9 Integrated pest management

- Pruning and the reasons for pruning
- Identifying bud types
- Basic rules of pruning
- Pruning in a home orchard
- Terminology
- Winter pruning tools
- Examples of winter pruning; Crepe Myrtle, Hydrangea, Raspberry, Fuchsia, Kiwi Fruit, Grevillea, etc
- Rose pruning

10 Landscaping

- Introduction and pre-planning information
- Plant selection criteria
- Covering the ground
- Living plant cover
- Mulches
- Container growing outside
- General considerations
- Terminology

11 Propagation

- Methods of propagation: seed propagation and vegetative propagation
- Propagation structures: cold frames
- Cutting propagation
- Factors affecting rooting of cuttings

12 Lawns

- Turf grass varieties
- Review of common turf species
- Laying a new lawn
- Common turf problems
- Cultural techniques including watering, fertilizing, topdressing, aerating, pest and disease control.

13 Arboriculture

- What is arboriculture
- How to keep trees healthy
- Where and how to cut trees to remove branches or prune
- Why remove a tree
- Ways to fell a tree and removing a stump
- Tree surgery; terms and techniques





Elective Module – Select 1 specialist elective module

Horticulture II (Plant Knowledge)

Plant identification is arguably the most important skill for any gardener, landscaper or professional horticulturist.

This course will help you understand the systems to know and understand the thousands of different garden plant cultivars that horticulturists may need to work with throughout their career. It isn't as hard as you might think to identify all these plants, once you get to know the system.

Horticulture III (Plant Health)

Learn about plant pests and diseases: identify pest and disease problems, and learn how to treat plant health problems. An online study program with lots of practical components.

This course will teach you about how to provide plant optimum care and prevent pests and diseases in order to get the most out of your garden, nursery or gardening service.

Operational Business Management I (Horticulture)

Learn to plan for economic and marketing success in the horticultural industry. Study operational business management and learn the strategies of managing a horticultural business or enterprise.

Your ability to manage a business can make a huge difference to your success in horticulture. In this course, you will learn to the business side of horticulture, including how to plan and implement effective strategies for your business and/or services.

Practical Horticulture 1

A course perfect for students who learn best from working with their hands, this course covers horticultural theory but with an emphasis on learning through practical work. It's designed so that the theory is taught through the practical exercises students do.

Practical Horticulture 1 will teach you the skills and techniques to learn better horticultural practices for garden maintenance, nursery work, landscaping, crop production or other areas of the horticultural industry.

Australian Natives I

Develop your ability to identify, select, cultivate and plan a management program, for a variety of Australian native plants.

This course was developed by a team of horticulture experts and provides a foundation for working with Australian plants in nurseries, landscaping, gardens management, conservation, plant breeding and environmental assessments.

Botany II (Plant Growth and Development)

Learn the principles of plant physiology and their practical applications in this advanced botany course. A valuable course to understand plant growth.

This course is all about applying botany to solve problems in our world. It is practical and applicable to anyone working or wanting to use botanical knowledge for commercial or workplace solutions.



Course overview



Course duration

This course is made up of 2 in-depth modules which includes 23 lessons and 1 free specialist elective module. The amount of study time required to complete this course is approximately 300 hours of study.

There are options to reduce the modules from this program. Just speak to one of our team members for more information.



Supporting you in your studies

With our courses you are not on your own. Careers Collectiv provides the highest level of support possible.

Your tutor will provide you with their email and contact number to ensure you always have support throughout your course. Our tutor support service is available to you 24 hours, 7 days a week.



24/7 Access

Online 24/7 access to your course allowing you to fit your study in with your schedule.



Certification

A certificate of attainment will be issued upon completion of your course.

Careers Collectiv benefits

- Study from anywhere, anytime
- No experience required
- No set deadlines
- Lifetime access to your course

Flexible payment options

This course can be paid off through an interest free payment plan for \$25 per week.

The overall price will vary depending on the options you select. We also offer a discount for upfront payments.

To find out more about the course that best suits your needs, talk to one of our career advisors on **1300 001 703**.

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