



Advanced Certificate in Crop Production

Course Guide



Advanced Certificate in Crop Production

Turn your dream for a career in horticulture and farming into a reality

Have you always wanted to work outdoors? Maybe you've thought about turning a passion in horticulture, farming and crop production into a career? This advanced certificate is ideal for anyone aspiring to start up or expand their current business into a commercial crop production.

The course is packed with all the information you need to start, expand or further your business journey. We offer a wide range of electives so you can focus on specific areas of farming depending on your relevant needs and interests.

The course also has a business module purely focused on the management and financial side of operations. This means you will be skilled and knowledgeable in crop production but also understand the key business concepts required to be successful in this field.

Perfect for people searching for work in crop production, looking to start their own business or expand their commercial growing operations.





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.



Advanced Certificate in Crop Production

Sow the seeds and grow your career in fruit, vegetable or cut flower production

This is a broad horticultural course covering all aspects of crop production from growing outdoor and greenhouse-protected crops, soil management, irrigation, and a general horticultural knowledge.

Learn all aspects of growing outdoor and protected crops from nursery stock to vegetables, fruits, nuts and cut flowers. An additional module focusing on the business and management of running a crop farm is included, as well as an elective in an area of crop production you are interested in or feel you need more in-depth information.

Who is the course for?

This course is designed for students with no previous experience in crop production looking to work in the sector or hobby farmers looking to grow into a business and establish themselves in commercial crop production. The course gives a solid foundation for market gardening, fruit orchards, vegetable farming, cut flower production or broad acre cropping.



7 modules



750 hours

This course has 6 main core modules

- Foundation in Horticulture
 - Soil Management (Crops)
 - Outdoor Plant Production (Crops 1)
 - Protected Plant Production
 - Irrigation - Crops
 - Farm Management
- + 1 free elective module of your choice is included as 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 Advanced Certificate in Crop Production is a comprehensive introduction to crop growing which covers a huge amount of ground.

Learn about different types of crop systems, how to establish and nurture crops, and techniques used in traditional and organic growing systems.

See how soil is related to production yield and quality of crops and understand the design, installation, maintenance, operation and evaluation of irrigation.

Not only will you learn how to produce crops, you'll also learn skills in management and the knowledge required to successfully run a crop production business. Topics like managing resources, staff, strategic planning, whole farm planning and preparing business plans are included in the course to give you the most in-depth education in crop production.

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 crop production and horticulture.

Where could you work?

- As a crop grower
- As a farm manager
- Greenhouse worker
- On a produce or flower farm
- In an fruit orchard
- Managing a farm supply, service or marketing business
- In crop processing facilities
- Crop and produce marketing, education and media



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

Soil Management (Crops)

- 1 Physical and Chemical Properties of Soils
- 2 Soil Testing Methods
- 3 Sustainable Soil Management
- 4 Soils and Managing Earthworks
- 5 Land Degradation and Other Soil Problems
- 6 Soil Science and Health
- 7 Soil Management





Outdoor Crop Production

1 Crop Production Systems

- Application of different cropping systems for crop production

2 Organic Crop Production

- Organic plant production
- Fulfilling requirements to achieve organic certification in different countries

3 Soils and Nutrition

- Function of soils
- Plant nutrition in outdoor cropping systems

4 Nursery Stock Production

- Commercial production of nursery stock

5 Tree Fruit Production

- Commercial production of tree fruit crops

6 Soft Fruits Production

- Techniques used to produce soft fruits

7 Vegetable Production

- Techniques used to grow vegetables

8 Cut Flower Production

- Commercial production of cut flowers

9 Herbs, Nuts and Miscellaneous Crops

- Commercial production of herbs, nuts and other miscellaneous crops

10 Crop Production Risk Assessment

- Risks that may occur in crop production

Protected Plant Production

1 Structures or Protected Cropping

2 Environmental Control

3 Cladding Materials and their Properties

4 Irrigation

5 Nursery Nutrition

6 Relationship Between Production Techniques and Horticultural Practices

7 Horticultural Management in a Greenhouse: Pests and Diseases

8 Harvest and Post Harvest Technology

9 Greenhouse Plants

10 Risk Assessment

Irrigation – Crops

1 Introduction

2 Soil Characteristics and Problems

3 Estimating Plant and Soil Requirements

4 Drainage – Drainage systems, dams, etc.

5 Types of Irrigation Systems

6 Hydraulics – discharge and flow rates, etc

7 Pumps and Filters

8 Selecting the Right System for the Plant

9 Trickle Irrigation

10 Design and Operation of Systems

Farm Management

1 Strategic Planning

- Planning procedures
- Policy formulation approach
- Strategic management approach
- Initial strategy approach
- Farm business structures
- Management plans
- Financial terminology and the money market
- Finding finance; rural finance sources
- Financial terminology and record keeping
- Contract law
- Elements of a simple contract
- Offers, acceptance, consideration
- Strategic plans
- Trusts

2 Business Plans

- Farm planning
- Quality management systems
- Whole farm planning
- Preparing a business plan
- Integrated production plans

3 Business Assessment

- Business goals
- Factors involved in business assessment
- Considering factors affecting your business
- Drawing conclusions

4 Viability Analysis

- Assessing profit
- Risk analysis and managing risk
- Standards; cost efficiency
- Cost of production
- Quality and quantity standards
- Financial records
- The bookkeeping process
- End of period accounting
- Cash flow
- Example of budget
- Sensitivity analysis

5 Management Strategies

- Organising the workplace
- Scheduling; production systems
- System variables

- Animal production systems
- Lot feeding
- Cropping systems
- Polyculture
- Office systems
- Computers
- Business diversification
- Value adding

6 Human Resources

- Supervision
- Organisational structures
- Leadership
- Workplace changes
- Interviewing, recruitment and staff induction
- Giving instructions
- Managing human resources
- Work scheduling
- Occupational Health and safety
- Duty of care
- Protective equipment
- Dealing with chemicals
- Handling tools and equipment
- Safety auditing

7 Physical Resources

- Managing equipment
- Machinery and building
- Managing physical resources
- Engineering efficiency
- Animal structures

8 Natural Resources

- Regulations and legislation
- Land care programs
- Rehabilitation
- Trees; erosion control
- Soil degradation
- Salinity
- Soil acidification
- Compaction
- Chemical residues
- Water management
- Water quality
- Irrigation and watering systems





Elective Module – Select 1 specialist elective module

Agricultural Irrigation

Learn better water management and irrigation practices to improve a farm, increase farm profit and improve farm sustainability.

This elective will help you to understand the irrigation needs of plants, your soil and how it responds to irrigation, when is best time to irrigate and types of irrigation systems that are best suited to your needs.

Organic Plant Culture

Study organic practices as well as the theory behind organic plant culture. Develop a solid understanding of the principles and procedures underlying the cultivation of fruit and vegetables by natural methods.

This elective subject is similar to other commercial organic vegetable growing courses, but with added fruit trees/crops and ornamental content.

Organic Farming

Study organic farming and learn to farm animals or crops using organic, biodynamic, eco-farming techniques.

Increase your knowledge and understanding of the different types of organic methods and see the possibilities for applying ideas and techniques from various organic farming approaches in your own farm.

Commercial Organic Vegetable Growing

If you have a property and are looking to start out in organics or want to start working in the organics sector, this elective covers all aspects of organic vegetable growing from propagation, to soil management, to harvesting and marketing.

Understand the transitioning process and know what is required to grow and sell your produce as 'organically certified'.

Horticultural Resource Management

Learn how to manage a horticulture business or enterprise, such as a nursery, park, garden, orchard, farm, or landscaping business.

This elective guides you from managing products and resources through to staff training and supervision – everything is covered. BY the end of this elective, you should be able to assess assets and liabilities of a business and devise a feasible business plan.

Machinery and Equipment

Learn about the maintenance and selection of machinery and equipment used in construction, agriculture and horticulture industries.

Develop your understanding of equipment, and ability to manage the selection, operation and maintenance of tools and machinery with particular reference to professional gardening, agriculture and horticulture. This elective will allow you to understand the use and operation of tools, equipment and machines used in horticulture and how to keep them running smoothly by yourself.

Commercial Vegetable Production

Learn about growing crops of vegetables in a commercial business setting. Whether you want to start a market garden or work on a vegetable farm, this elective covers all aspects of commercial vegetable growing.

Understand the importance of soils, cultural practices as well as pest and disease management to get the optimum crop production and in turn, a more profitable farm.



Course overview



Course duration

This course is made up of 6 in-depth modules which includes 55 lessons and 1 free specialist elective module. The amount of study time required to complete this course is approximately 750 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 \$35 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**.

Call our career advisors for payment options on **1300 001 703**

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