



# New Zealand Certificate in Apiculture (Level 4)



**Domestic:** Free through TTAF - usually \$3,418!

Due to the Government's Targeted Training and Apprenticeship Fund.

- > You will need a laptop/device to study this programme online which isn't covered by this fund.
- > You will still need to pay for any additional course-related costs such as textbooks (see more info in Additional Costs section).
- > You can pay for this yourself or apply for a loan/allowance via Studylink.

**International:** To be confirmed

\*Fees are approximate, subject to change and exchange rates

**Location** Online with weekend block courses in:

- > Cromwell, Central Otago (Bannockburn Road)
- > Dunedin (Momona Hall)
- > Gisborne (Eastwoodhill Arboretum)
- > Hamilton (Fraser High School)
- > Orewa, North Auckland
- > Ohoka, Rangiora (Mandeville Fire Station)
- > Tauranga (Whataroa Road)
- > Wakefield, Nelson (Willowbank Heritage Centre)
- > Whangarei (Maromaku School)

\*Pending locations: Palmerston North

**Duration** 9 months part-time

- Delivery**
- > Online learning - one evening class per fortnight (7.00pm-9.00pm)
  - > Practical weekend workshops once per month (9.00am-5.00pm, Sat and Sun)
  - > Further practical work to be carried out in students' own time

**Credits** 60

**Level** 4

**Start** 5 September 2021

**Apply** 31 August

Gain the skills and knowledge to manage a viable apiculture business.

This programme will enable you to operate as a Leading Hand in a commercial operation or to run your own commercial operation.

Offered through a unique blended delivery model, this qualification is for people who are single source, comb, or medical grade manuka honey producers, pollination service providers or self-marketing producers. You will gain the range of skills and knowledge needed to operate independently as beekeepers and will enjoy improved job performance.

By successfully achieving both the New Zealand Certificate in Apiculture (Level 3) and New Zealand Certificate in Apiculture (Level 4), you will have completed the apprenticeship scheme endorsed by Apiculture NZ (the governing body for apiculture in New Zealand). Otago Polytechnic is the only polytechnic provider of this industry-recognised training pathway in New Zealand.

**Entry requirements**

- > New Zealand Certificate in Apiculture (Level 3) or equivalent industry skills and knowledge.

- > Graduates are expected to have completed an industry-approved American Foulbrood recognition and destruction course before you graduate from this programme.
- > If English is not your first language, you must provide:
  - > New Zealand University Entrance OR
  - > Overall Academic IELTS 5.5 with no individual band score lower than 5.0 (achieved in one test completed in the last two years), OR
  - > Acceptable alternative evidence of the required IELTS (see here for NZQA proficiency table and here for list of recognised proficiency tests).

If you need to improve your English Language skills, we offer a wide range of English programmes.

#### Additional costs

- > You will need to purchase your own Personal Protective Equipment (PPE) which includes a beekeeping suit (overalls and veil), gloves, smoker and hive tool (approximately \$250).
- > It is preferable that the students wear steel-capped boots or gumboots.
- > You will need to have access to a computer and the internet. Course material will be made available online (through Moodle, our education online platform). Meetings, theory classes and assignments may be carried out online (via Microsoft Teams).

#### Course descriptions

### 1. Plants, Pollination and Nutrition (15 credits)

Be introduced to the relationships between bees and flowering plants and the importance that plants play in providing food for bees.

#### Indicative content

- > Factors related to weather and seasons in terms of the way in which they influence flowering patterns and honey flows
- > Function of nectar and pollen in the flower
- > Flowering plants which are common sources of honey in terms of their features
- > Contribution of bees to pasture pollination in terms of their effect on meat and dairy production
- > Attributes which make bees good pollinators, and the crops they typically pollinate
- > Feed types for beehives and the situations in which they might be used
- > Seasonal calendar for feeding and nutritional tasks.

#### Learning outcomes

At the successful completion of this course, learners will be able to:

1. Explain the relationship between flowering plants and bees and how it is influenced by weather.
2. Describe the relationship between bees and arable and crop pollination
3. Describe the nutritional requirements and feed types in relation to bees and beehives.
4. Develop, implement and monitor a beehive nutritional management plan.

### 2. Bee Diseases and Management Plan (15 credits)

Learn how to recognise bee diseases, pests and disorders and manage these throughout the beekeeping season.

#### Indicative content

- > Identify exotic diseases and pests by physical appearance, damage caused and presence in the hive
- > Implications for disease, disorder and pest control and notification requirements
- > Varroa treatments and the timing of their application and removal from the apiary
- > Determine when American foulbrood (AFB) disease checks and sampling will be undertaken
- > Use records, seasonal outcomes and industry references to recommend changes to a disease management plan.

#### Learning outcomes

At the successful completion of this course, learners will be able to:

1. Identify and describe exotic bees and the implications of their diseases or disorders.
2. Describe the management practices for an exotic bee and the impact of an exotic incursion on the New Zealand beekeeping industry.
3. Develop, implement and monitor a bee disease management plan.

### 3. Seasonal Management and Food Safety (15 credits)

Develop a seasonal management plan for the operation of apiaries of beehives and to implement this plan over a beekeeping season.

Indicative content

- > Assess food stores against spring requirements and determine the needs of beehives
- > Check beehives for disease, locate the queen bee and isolate with queen excluder
- > Assess beehives to determine likelihood of swarming and suitability to divide hives to produce a nucleus hive or top hive
- > Workplace procedures to control or eliminate a food safety hazard at a critical control point.

Learning outcomes

At the successful completion of this course, learners will be able to:

1. Develop a seasonal beehive management plan to address seasonal operations within an apiary.
2. Implement and monitor beehive management operations in accordance with the management plan.
3. Implement and monitor food safety procedures in an apiculture operation.

#### 4. Beehive Product Production and Business Strategy (15 credits)

Understand the production and processing of a range of beehive products, and analyse an apiculture business to develop a business strategy for a new market.

Indicative content

- > Chemical composition and physical properties of honey
- > Factors affecting honey quality
- > Factors used to measure honey quality
- > Understanding granulation, homogenisation, creaming process
- > Types of honey
- > Composition, properties, factors affecting quality, production and marketing of a range of beehive products
- > procedures to minimise product contamination from humans with contagious disease
- > Different types of contaminants present while harvesting honey and in a honey extraction plant
- > Management plans and seasonal calendars
- > Analyse and evaluate beehive management and pest and disease management plans for agriculture business
- > Summarise findings and recommendations for improvement and provide a report.

Learning outcomes

At the successful completion of this course, learners will be able to:

1. Describe the properties and types of honey, the process of honey production and factors affecting honey quality.
2. Describe the properties and production of beehive products other than honey.
3. Describe procedures to minimise the risk of product contamination when producing honey.
4. Research the operation of an apiculture business to determine goals and objectives for the business
5. Analyse beehive management and pest and disease management plans, and recommend improvements.

Your workload

As a part-time student you should aim to undertake around 15 hours of study per week throughout the programme. This will include workshops, online learning and discussions, reading text books, doing assessments, practical work in your own time and the completion of an apiary diary.

Further study options

Graduates of this programme can further their learning with the New Zealand Certificate in Apiculture (Level 4) (Queen Bee Rearing) or other qualifications in small business management.

Student Loans and Allowances

Part-time domestic students of this programme are eligible for student loans (not allowances). Some students may also qualify for Free Fees. Please contact Studylink for additional information. Phone 0800 88 99 00 or visit [www.studylink.govt.nz](http://www.studylink.govt.nz)

Disclaimer

While every effort is made to ensure that this sheet is accurate, Otago Polytechnic reserves the right to

amend, alter or withdraw any of the contained information. The fees shown in this document are indicative ONLY. Both domestic and international fees are subject to change and are dependent on the development and implementation of Government policies. Please note that additional fees may from time to time be required for external examination, NZQA fees and/or additional material fees.

International **+64 3 477 3014**  
New Zealand **0800 762 786**  
Email **[info@op.ac.nz](mailto:info@op.ac.nz)**

**Dunedin Campus**  
Forth Street, Dunedin  
Private Bag 1910  
New Zealand 9054

**Central Otago Campus**  
Corner Erris & Ray Streets  
PO Box 16, Cromwell  
New Zealand 9342

**Auckland Campus**  
Level 2, 350 Queen Street  
PO Box 5268, Auckland  
New Zealand 1141