# He Puka Whakaaetanga, Whakamana Hōtaka | Socialisation Document

Programme of Study:

New Zealand Certificate in Apiculture (Level 3)

Leading to the award of: 2223 New Zealand Certificate in Apiculture (Level 3)



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# 1 New Zealand Certificate in Apiculture (Level 3)

#### 1.1 Te Tühono Kawenga Hōtaka | A Unified Portfolio of Programmes

Te Pūkenga aims to develop a unified, sustainable, public network of regionally accessible vocational education programmes that have our ākonga (students) at the centre. This application for programme approval and accreditation forms part of the development of a national network of provision requiring partnerships and cooperation with co-responsibilities for programme delivery. This is consistent with Te Pūkenga academic delivery innovation strategic direction, which is aimed at establishing a coherent portfolio of programmes that will support ākonga, employers and industry to make informed decisions about future study and employment and achieve a sustainable network of ongoing delivery.

In order to develop a coherent portfolio of programmes that supports the above strategic direction, a unification process has been established that is aimed at achieving a future state of (in the main) one programme per qualification that supports and allows for a range of delivery modes, namely blended, distance and work-based learning. Currently, Te Pūkenga needs to work within the parameters of Programmes of Industry Training reporting via the ITR and Programmes of Study reporting via the SDR (as integrated NZ Programmes / Skills Standards and an integrated TEC reporting system are not yet available). The unified programme of study presented here unifies oncampus, blended and distance approaches, reported through the current SDR.

The unification process has been designed to employ a collaborative approach to redevelopment that will ensure that programme design meets the criteria set by Te Pūkenga Charter and our commitments under Te Pae Tawhiti, our Te Tiriti o Waitangi Excellence Framework, and Te Rito, our Ākonga at the Centre research project and reports. This approach also fulfills the expectations of the emerging Whiria Te Pūkenga (Mātauranga Māori Framework) and Te Pūkenga Ako Framework (Learning and Teaching Framework).

One of Te Pūkenga educational priorities is a relentless focus on equity and ensuring participation. Therefore, equity is integrated and embedded into Te Pūkenga operating model blueprint and business case. Te Pūkenga is also committed to putting ākonga at the centre of all we do, and working towards equity and success for ākonga of all genders, ethnicities, cultures and abilities, as outlined in our Equity and Ākonga Success Strategy.

In 2020, Te Pūkenga commissioned the Ākonga at the Centre research project to gain insights from ākonga (and those that supported them) on the barriers and enablers to their success across the current learner journey. The project applied Te Tiriti o Waitangi inspired principles of excellence and used Critical Bicultural and Human Centred Design methodologies as a new and innovative approach for the public sector. The research led to three Te Rito reports, focusing on Māori, Pacific and Disabled ākonga, respectively. Te Rito framework builds towards our Equity Outcomes framework, its purpose being to guide Te Pūkenga in its response to the unique needs of all ākonga, with a priority focus on Māori, Pacific and Disabled ākonga.

In accordance with Te Tiriti o Waitangi, Te Pūkenga is focused on ensuring our services work well and respond with excellence to the needs of Māori ākonga and their whānau, and to the aspirations of iwi and Māori communities throughout Aotearoa New Zealand. This objective comes from our Charter, our legislative mandate, and from the will of our Council, and is supported by the opportunities outlined in Te Rito Report Part One. In working to achieve this objective, we know it is not Māori ākonga or communities that need to change to fit with us; rather it is our responsibility to ensure our services improve for the betterment of Māori.

In terms of the needs of Pacific ākonga, Te Rito Report Part Two indicated a range of opportunities to be taken up by Te Pūkenga. These range from targeted support for the wellbeing of Pacific

learners to empowering and bringing effect to Pacific hopes and dreams for intergenerational development and prosperity. Te Pūkenga is committed to ensuring all Pacific ākonga and kaimahi feel that they belong, that their voices are heard, that the use of Pacific languages is normalised and that their cultures are valued.

In terms of the needs of Disabled ākonga, Te Rito Report Part Three indicated the need for Te Pūkenga to provide appropriate impairment-related learning support for Disabled ākonga to achieve their academic potential and to resolve barriers to learning. The research also indicated the need for mental wellbeing support, the reduction of financial barriers, a focus on the development of digital literacy skills and ensuring access to the physical learning environment. Te Pūkenga has developed a national strategic disability action plan, which incorporates the Enabling Good Lives principles. The National Strategic Disability Action Plan implements the Accessibility Charter across Aotearoa New Zealand and supports consistent data collection on Disabled ākonga, and training. The plan provides a unified national strategy across Te Pūkenga and was developed with ākonga and kaimahi (staff). The plan provides a comprehensive road map towards a vocational system that hears the voices of Disabled ākonga and what they need to succeed.

The unified programme presented here contributes to the ability of Te Pūkenga to offer a coherent portfolio of programmes that responds to the needs of ākonga, industries, iwi, hapū, hapori, Māori communities and Pacific communities. This also begins to take us towards addressing some of the inequities that exist for priority ākonga.

### 1.2 Te Huanui Whakawhanake i te Hōtaka | Development Approach

The New Zealand Certificate in Apiculture (Level 3) qualification was updated, with Version 2 published in October 2019. The last date for assessments to take place for Version 1 of this qualification is 31 December 2022. Therefore, rather than each network partner dedicating time and resource to develop programmes of study for the new version individually, one programme of study was selected and revised to become the unified programme of study.

The programme of study presented here is based on a collaborative design process across the following Te Pūkenga network partners:

- Eastern Institute of Technology Ltd (EIT)
- Northland Polytechnic Ltd (NorthTec)
- Otago Polytechnic Ltd (Otago)
- Toi Ohomai Institute of Technology Ltd (ToiO)
- Primary Industry Training Organisation

The collaborative design process was supported by two groups: (i) a Steering Group with representation from every relevant network partner, i.e., every network partner delivering programmes of study in the broad discipline area of Agriculture; and (ii) a Working Group tasked specifically with the unification of this programme of study. The Workforce Development Council was included in the Steering Group membership, and has thus been engaged in the unification process. The functions of the Steering Group were defined in a mutually agreed Terms of Reference, and included the following:

- oversight of the development of a single unified programme for each qualification Te Pūkenga delivers in the discipline area
- leading engagement with regional internal and external partners (including (i) relevant regional industry, including Māori and Pacific employers; (ii) communities at a local level, including hapū and iwi, and Pacific communities; (iii) Te Pūkenga kaimahi; and (iv) ākonga)
- steering programme unification work and providing advice and support to Working Groups

The Working Group of members from the collaborating Te Pūkenga network partners listed above selected the Otago Polytechnic programme of study (an existing approved programme) for the programme unification process. The programme selection criteria included the following:

- Version changes or accreditation/regulatory body changes have already been made.
- The programme was developed in close partnership with industry, hapū, iwi and Pacific communities.
- The programme was updated within the past three years.
- Minor updates to the programme will allow it to align with Te Pūkenga Charter.
- The programme already enables multiple modes of delivery.
- Te Tiriti o Waitangi is evident across the programme.
- The programme is ākonga-centred and allows a focus on under-served ākonga (Māori, Pacific, Disabled) and adult and second-chance ākonga).
- Minor updates to the programme will enable it to align with industry and community needs and allow regional flexibility.
- The programme addresses identified future needs of ākonga, industry and community.

# 1.3 Te Whakawhitinga ki te Tūhono Kawenga Hōtaka | Transition to the Unified Programme

As is clear from the above, the unification of this programme of study was achieved by means of *transition* to a single unified programme, developed on the basis of existing approved programme offerings that were informed by regional/local needs. Thus, programme content and delivery are contextualised, and provide relevant pathways to meet the needs of those local communities.

It should be acknowledged that the selection of a current approved programme as the basis for the unified programme means that aspects of the selected programme will be adopted across the network, such as programme structure, course details, and the ways in which Mātauranga Māori is embedded throughout the programme. A Mātauranga Māori snapshot tool will be applied to this unified programme to identify how contextualised Mātauranga Māori content is evident and what next steps are required to enhance or develop this further.

The unified programme presented here contributes to the ability of Te Pūkenga to offer a coherent portfolio of programmes and takes us a step towards addressing some of the inequities that exist for priority ākonga. Transition arrangements may be required for ākonga who fail to successfully complete courses within the existing programme of any given network partner. To this end, each network partner currently delivering this programme will create its own transition plan based on equivalencies between existing and new courses. Transition pathways will be identified on a case-by-case basis, informed by these course equivalencies, logistics and individual ākonga knowledge gaps. All care will be taken to minimise any ākonga disadvantage by their transition to the new programme, while still maintaining the integrity of the new unified programme.

decision making.

#### Appendix 1: Te Hono o te Kahurangi | Qualification Details

Details for the programme of study	NZQA Reference No.	Version No.	Credits	Level
New Zealand Certificate in Apiculture (Level 3)	XXXXX	2	65	3

which leads to the award of the following qualification

New Zealand Certificate in Apicult	2223	2	65	3		
NZSCED	050104 Agriculture, Environmental and Related Studies>Agriculture>Beekeeping					
Qualification developer	Muka Tangata					
Quality assurance body	New Zealand Qualifications Authority					
Next review	October 2024					
Next planned consistency review	2022					

#### Strategic purpose

The purpose of this qualification is to provide the apiculture industry with individuals who have the skills and knowledge to work safely and effectively as an assistant beekeeper. This qualification is for people who are either intending to work, or are working in, the apiculture industry. Graduates will be able to work under limited supervision.

#### **Graduate profile**

Graduates of this qualification will be able to:

- 1. Maintain, manipulate and operate beehives to produce quality products.
- 2. Assist to transport beehives and bee products and establish hives in new sites.
- 3. Apply knowledge of pest and disease control methods to carry out beehive disease management plans.

#### **Qualification education pathway**

This qualification may lead onto the New Zealand Certificate in Apiculture (Level 4) [Ref: 2224] or the New Zealand Certificate in Apiculture (Level 4) (Queen Bee Rearing) [Ref: 2225].

#### **Employment/cultural/community pathway**

Graduates of this qualification may be employed as an assistant beekeeper for a commercial operator.

#### Professional recognition/accreditation

n/a

Other requirements of the qualification (including regulatory body or legislative requirements)

Graduates are expected to have completed an industry approved American Foulbrood recognition and destruction course. For information on courses available contact Apiculture New Zealand - www.apinz.org.nz.

#### **General conditions for programme**

It is expected that learners will obtain work experience in a practical beekeeping environment and be assessed throughout a beekeeping season to achieve this qualification.

Tertiary Education Organisations offering programmes leading to this qualification must maintain currency with amendments to, and replacements of, relevant legislation, regulations, and codes of practice which may include some or all of the following:

- Biosecurity Act 1993
- Biosecurity (National American Foulbrood Pest Management Plan Order) 1998
- Food Act 2014
- Health and Safety at Work Act 2015
- Hazardous Substances and New Organisms Act 1996
- Resource Management Act 1991
- Local bylaws.

#### **Qualification version transition information**

Version 2 of this qualification was published in October 2019 following review.

The last date for assessment for version 1 of this qualification is 31 December 2022.

It is the intention of Primary ITO that no existing trainee should be disadvantaged by these transition arrangements.

Any person who considers they have been disadvantaged may appeal to:

Primary ITO, PO Box 10383 The Terrace, Wellington 6143.

#### Appendix 2: Waeture ā-Hōtaka | Programme Regulations

In the regulations presented here, unless the context otherwise requires, 'delegated authority' refers to an individual or role holder, or in some cases a committee, who has been delegated the authority to make a decision within a specific circumstance. A schedule of the various relevant delegations is maintained by the Programme Committee responsible for the programme. Te Pūkenga aims to enable broad access for ākonga and is committed to providing barrier-free access and participation for Māori, Pacific, Disabled and other equity groups.

#### Whakatapoko | Admission

General admission	Open Entry if the delegated authority at the campus/site is satisfied that the applicant has the capability to complete the requirements of the programme.
Additional requirements	Ākonga must be physically capable of meeting the demands of the programme. Any medical conditions which may affect the ability of ākonga to participate must be disclosed and assurance provided to ensure health and safety.
English language requirements	All applicants (international and domestic) for whom English or te reo Māori is not a first language need to provide evidence that they have the necessary English language proficiency required for the programme.  International applicants are required to have an IELTS score of 5 (general or academic) with no individual band lower than 5 from one test taken in the preceding two years, or an equivalent described in NZQA Rules.

#### **Selection Processes**

Limits on enrolment may be applied due to health and safety reasons and/or availability of resourcing.

#### Tūtukitanga Whakamihi | Credit Recognition

The provisions and procedures for credit recognition through cross credit, credit transfer and recognition of prior learning in this programme are set out in with Te Kawa Maiorooro | Educational Regulatory Framework.

#### Tohu o te Hōtaka | Award of Qualification

Credit requirements	To be awarded the <b>New Zealand Certificate in Apiculture (Level 3)</b> , ākonga must achieve a minimum of 65 credits in the pattern set out in Table 1 below from the courses set out in Table 2 below. <b>Table 1: Credit Requirements</b>					
	Leve	el	Compulsory credits	Elective credits	s Tota	l credits
	3		65			65
	Total credi	ts				65
	Table 2: Schedule of Courses					
	Course code	Course	title		Credits	Pre- requisites
	Level X					
	AGRI3201	Bee Ke	eping Fundamentals	;	15	Nil
	AGRI3202	Manip	ulating Bee Hives		20	Nil
	AGRI3203	Beehiv	e Disease Managem	ent Planning	15	Nil
	AGRI3204	Beehiv	e Disease Managem	ent Control	15	Nil

	TOTAL CREDITS	65	
Programme completion	The minimum time to complete this programme is 6 months (full-time study) or 1 year (part-time study).		
	ears.		
	The delegated authority may approve an alternative maximum completion time.		

# **Waeture Aromatawai | Assessment Regulations**

Grading	Assessment in this programme is competency-based.  Grading follows the guidelines in Te Kawa Maiorooro   Educational Regulatory Framework.  Specific assessment and/or course pass requirements are detailed in programme delivery documentation.
Assessment submission and additional opportunities	Requirements and processes for      assessment submission,     resit and/or resubmission opportunities for failed assessments,     reassessment opportunities for failed courses,     late submission of assessments, and     extension of assessment deadlines are outlined in programme delivery documentation provided to ākonga at the start of their course.

Appendix 3: Ngā Hua o te Ako me te hāngai ki Ngā Putanga Ako a te Tauira | Learning Outcomes and Assessment Mapped to Graduate Profile Outcomes

					Maintain, manipulate and operate beehives to produce quality products. 35 credits	Assist to transport beehives and bee products and establish hives in new sites. 5 credits	Apply knowledge of pest and disease control methods to carry out beehive disease management plans. 25 Credits
Course Code	e & Title	Course	Aim & Outcomes Assessment		GPO 1	GPO 2PO 2	GPO 3
AGRI3201	Bee Keeping	Aim	The aim of this course is to develop the knowledge, skills, and attributes relevant to the fundamentals of beekeeping.				
	Fundamentals	LO1	Describe the biology of bees and their relationship with the environment.  All LOs:		٧		
		LO2 Identify regulations, safety requirements, and equipment for beekeeping.  Assessment portfolio (100%)	tfolio (100%)	V			
		LO3	Describe the equipment and materials used to construct beehives.	_	٧		
		LO4	Construct and maintain boxes and frames used in beekeeping.		٧		
AGRI3202	Manipulating Bee Hives	Aim	The aim of this course is to develop the knowledge, skills, and attributes to maintain and manipulate beehives to maximise product	aximise production.			
		LO1	Describe hive management methods which maximise honey production and pollination.  All LOs:	· (	V		
		LO2	Manage hives safely throughout the seasons to optimise honey production or pollination.  Assessment port	ποιιο (100%)	٧	٧	
		LO3	Demonstrate the safe harvesting, transport and extraction of honey.		٧	٧	
AGRI3203	Beehive Disease	LO3 Aim	Demonstrate the safe harvesting, transport and extraction of honey.  The aim of this course is to develop the knowledge, skills, and attributes to carry out a seasonal pest and disease management plan	ı.	٧	V	
AGRI3203	Beehive Disease Management Planning		The aim of this course is to develop the knowledge, skills, and attributes to carry out a seasonal pest and disease management plan  Describe procedures and practices to manage common pests and diseases over an apiculture season.  All LOs:		V	<b>V</b>	٧
AGRI3203	The state of the s	Aim	The aim of this course is to develop the knowledge, skills, and attributes to carry out a seasonal pest and disease management plan		V	V	V V
AGRI3203	The state of the s	Aim LO1	The aim of this course is to develop the knowledge, skills, and attributes to carry out a seasonal pest and disease management plan  Describe procedures and practices to manage common pests and diseases over an apiculture season.  All LOs:		V	V	•
AGRI3203	The state of the s	Aim LO1 LO2	The aim of this course is to develop the knowledge, skills, and attributes to carry out a seasonal pest and disease management plan  Describe procedures and practices to manage common pests and diseases over an apiculture season.  Reflect on the implementation of a pest and disease management plan in an apiculture context.  All LOs:  Assessment port	tfolio (100%)	V	V	٧
	Management Planning	Aim LO1 LO2 LO3	The aim of this course is to develop the knowledge, skills, and attributes to carry out a seasonal pest and disease management plan Describe procedures and practices to manage common pests and diseases over an apiculture season.  Reflect on the implementation of a pest and disease management plan in an apiculture context.  Apply procedures and practices to safely manage pests and diseases in apiculture.	tfolio (100%)	V	V	٧

#### Appendix 4: Akoranga | Courses

The following Course Descriptors provide an overview of the content and structure of each course in the programme. Learning and teaching, and assessment activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

BEE KEEPING FUNDAMENTALS							
Course code	AGRI3201	Level	3	Credits	15		
Pre-requisites	Nil	Co-requisites		Nil			
Main programme	New Zealand Certificate in Apicul	ture (Level	3)				
Delivery modes	Provider-based	Total learning hours (See course delivery document for detailed breakdown.)		150			

#### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge, skills, and attributes relevant to the fundamentals of beekeeping.

#### Ngā Hua o te Ako | Learning Outcomes

Upon	Graduate outcome alignment	
LO1	Describe the biology of bees and their relationship with the environment.	1
LO2	Identify regulations, safety requirements, and equipment for beekeeping.	1
LO3	Describe the equipment and materials used to construct beehives.	1
LO4	Construct and maintain boxes and frames used in beekeeping.	1

#### Ngā Tūtohu o te Kiko Indicative Content

LO1	<ul> <li>Caste system of bees.</li> <li>Physical features of bees.</li> <li>Life cycle of bees in a beehive.</li> <li>Adult bees and behaviour patterns.</li> <li>Flower biology and how bees obtain food.</li> <li>Local bee flora and the influence of weather on honey flow.</li> <li>Plants that contribute to poisonous honey, honeydew or bee toxicity</li> <li>Harvest declarations</li> </ul>
LO2	<ul> <li>Personal protective equipment worn by a beekeeper</li> <li>Supporting equipment and tools required for beekeeping</li> <li>Regulations for beekeeping in New Zealand</li> <li>Safety requirements for beekeeping in NZ</li> </ul>
LO3	Equipment and materials used for beehive construction.
LO4	Construction techniques

#### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

#### Aromatawai | Assessment

Assessment in this course is competency-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
Assessment portfolio  Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.	100%	All

Ākonga are required to provide sufficient evidence against all learning outcomes in order to pass the course.

#### Wehenga/Standards

Std no.	Title	Version	Credits	Level
30798	Demonstrate knowledge of bees, the bee life cycle and adult bee behaviour patterns	2	4	3
30843	Identify and describe beehive construction equipment, and construct and repair beehives	2	5	3
30788	Demonstrate knowledge of plants that provide feed for bees and harvest declarations	2	4	3

#### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākonga via course outlines.

Ver No.	Approved by	Approval date	Effective from	Description of change

MANIPULATING BEE HIVES						
Course code	AGRI3202	Level	3	Credits	15	
Pre-requisites Nil Co-requisites		Nil				
Main programme	Main programme New Zealand Certificate in Apiculture (Level 3)					
Delivery modes Provider-based Total learning hours (See course delivery document for detailed breakdown.)		150				

#### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge, skills, and attributes to maintain and manipulate beehives to maximise production.

#### Ngā Hua o te Ako | Learning Outcomes

Upon the succ	Upon the successful completion of this course, ākonga will be able to		
LO1	Describe hive management methods which maximise honey production and pollination.	1	
LO2	Manage hives safely throughout the seasons to optimise honey production or pollination.	1, 2	
LO3	Demonstrate the safe harvesting, transport and extraction of honey.	1, 2	

#### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul> <li>Requeening</li> <li>Swarm control</li> <li>Uniting and dividing beehive</li> </ul>
LO2	<ul> <li>Control swarming and unite and divide a beehive</li> <li>Introduce a new queen bee cell or mated caged queen</li> <li>Beehive site requirements and establish beehives at the new site.</li> <li>Inspect and manage beehives at new apiary site</li> <li>Transport requirements for beehives to new apiary locations.</li> <li>Prepare beehives for transport and transport beehives.</li> <li>Winter down beehives.</li> </ul>
LO3	<ul> <li>Remove honey supers from beehives and remove bees from honey supers</li> <li>Check beehives, and transport and store honey supers for extraction</li> <li>Extract honey</li> </ul>

#### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

#### Aromatawai | Assessment

Assessment in this course is competency-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
Assessment portfolio  Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.	100%	All

Ākonga are required to provide sufficient evidence against all learning outcomes in order to pass the course.

# Wehenga/Standards

Std no.	Title	Version	Credits	Level
30785	Describe re-queening and re-queen a beehive	2	3	3
30799	Describe swarming and methods for swarm control, control a swarm, and unite and divide beehives	2	3	3
30792	Carry out honey harvesting	2	3	3
25894	Extract honey	3	4	3
30784	Describe and carry out wintering down of beehives	2	3	3
19892	Describe beehive transport requirements, and transport and establish beehives on site	4	5	3

# Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākonga via course outlines.

Ver No.	Approved by	Approval date	Effective from	Description of change

BEEHIVE DISEASE MANAGEMENT PLANNING						
Course code	AGRI3203	Level	3	Credits	15	
Pre-requisites Nil Co-requisites		ites	Nil			
Main programme	New Zealand Certificate in Apicul	ture (Level	3)			
Delivery modes	Provider-based	Total learning hours (See course delivery document for detailed breakdown.)		150		

#### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge, skills, and attributes to carry out a seasonal pest and disease management plan.

#### Ngā Hua o te Ako | Learning Outcomes

Upon the s	Upon the successful completion of this course, ākonga will be able to		
LO1	Describe procedures and practices to manage common pests and diseases over an apiculture season.	3	
LO2	Reflect on the implementation of a pest and disease management plan in an apiculture context.	3	
LO3	Apply procedures and practices to safely manage pests and diseases in apiculture.	3	

#### Ngā Tūtohu o te Kiko | Indicative Content

LO1	Common bee pest and diseases
LO2	<ul> <li>Record inspection details, pest and disease control measures</li> <li>integrated pest management in an apiary diary</li> <li>Review activities of the pest and disease management plan over an apiculture season.</li> </ul>
LO3	<ul> <li>implement a seasonal pest and disease management plan</li> <li>Inspection tasks</li> <li>Methods and procedures used for integrated pest management (IPM) control</li> <li>Management of disease &amp; pests, chemical controls and their hazards</li> <li>Procedures utilised in the disinfection of hives, personal equipment and elimination of diseased hives</li> </ul>

#### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

#### Aromatawai | Assessment

Assessment in this course is competency-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
Assessment portfolio  Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.	100%	All

Ākonga are required to provide sufficient evidence against all learning outcomes in order to pass the course.

# Wehenga/Standards

Std no.	Title	Version	Credits	Level
30795	Carry out an apiary pest and disease management plan over an apiculture season.	2	15	3

#### Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākonga via course outlines.

Ver No.	Approved by	Approval date	Effective from	Description of change

BEEHIVE DISEASE MANAGEMENT CONTROL					
Course code	AGRI3203	Level	3	Credits	15
Pre-requisites	Nil	Co-requisites Nil			
Main programme	New Zealand Certificate in Apiculture (Level 3)				
Delivery modes	Provider-based	Total learning hours (See course delivery document for detailed breakdown.)		150	

#### Whāinga/He Tauākī Akoranga | Aim/Outcome Statement

The aim of this course is to develop the knowledge, skills, and attributes to assess and respond to beehive health and to recognise common pests and diseases.

#### Ngā Hua o te Ako | Learning Outcomes

Upon the successful completion of this course, ākonga will be able to		Graduate outcome alignment
LO1	Describe the management of common pests and diseases relevant to apiculture in Aotearoa New Zealand	3
LO2	Monitor beehive health and feed requirements to inform bee feeding.	1, 3

#### Ngā Tūtohu o te Kiko | Indicative Content

LO1	<ul> <li>American foulbrood (AFB)</li> <li>Varroa mite</li> <li>Other common bee pests and diseases found in Aotearoa New Zealand</li> <li>Symptoms and lifecycles of common diseases and disorders</li> <li>Successfully complete an industry approved AFB disease recognition course</li> </ul>
LO2	<ul> <li>Beehive health</li> <li>Signs and symptoms of an ill colony</li> <li>Feed requirements of bees.</li> <li>Monitor the feed requirements</li> <li>Supply feed as required.</li> </ul>

#### Ngā Mahi Ako me te Whakaako | Learning & Teaching Activities

Learning and teaching activities will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.

#### Aromatawai | Assessment

Assessment in this course is competency-based. Ākonga will be advised of all matters relating to summative assessment at the start of the course.

Assessment activity	Weighting	Learning outcomes
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Assessment portfolio	100%	All
Will employ a range of elements drawn from approved methods to align with the context of the learning (delivery mode, regional specific requirement, etc.) and any particular needs of the group of ākonga.		

Ākonga are required to provide sufficient evidence against all learning outcomes in order to pass the course.

#### Wehenga/Standards

Std no.	Title	Version	Credits	Level
30789	Describe American foulbrood, varroa mite, and other bee pests and diseases found in New Zealand	2	10	3
30790	Assess beehive health, monitor beehive feed requirements, and feed bees	2	6	3

# Ngā Rauemi Ako | Learning Resources

All required and recommended resources are advised to ākonga via course outlines.

Ver No.	Approved by	Approval date	Effective from	Description of change