



Mahinga Kai – Te Hoata (Kaupae 3)

New Zealand Certificate in Māori Traditional Food Production, Harvest, and Management (Kaupae 3)

Alignment with Unit standards Guide

Please note: Unit Standard credit values may not always match the credit values for each of the Graduate Profile Outcomes.

Graduate Profile Outcome (including indicative credit values)	Programme Guidance	STD No.	Title	Outcomes	Performance Criteria
Whanaungatanga: (10 credits)					
Communicate and develop relationship skills and strategies to foster whanaungatanga across a range of stakeholders. (10 credits)	<ul style="list-style-type: none"> Apply effective communication skills and strategies with a range of stakeholders in Mahinga Kai contexts to develop and manage relationships. 				
Te Pono me te Tika: (20 credits)					
Apply mātauranga Mahinga Kai in a manner that is pono me te tika and in accordance with local kawa, tikanga, and relevant legislation. (20 credits)	<ul style="list-style-type: none"> Apply relevant kawa, tikanga, and legislation to protect and enhance mātauranga Mahinga Kai. The following contexts should be explored: <ul style="list-style-type: none"> Traditional land use production, and harvest of food 	16348 (L3, C6)	Explain the Resource Management Act 1991 and its provision for Māori	Explain Māori terminology and sustainable management as defined in the Act.	1.1 Kaitiakitanga is explained in terms of the definition contained in the Act. 1.2 Tangata whenua is explained in terms of the definition contained in the Act. 1.3 Wāhi tapu is explained in terms of the definition contained in the Act. 1.4 Sustainable management is explained in terms of the definition contained in the Act.
				Explain how the Act recognises and provides for tikanga Māori, and the principles of the Treaty of Waitangi.	2.1 Section 6(e) and section 7(a) of the Act are explained in terms of how the Act recognises and makes provisions for tikanga Māori. 2.2 Section 8 of the Act is explained in terms of how the Act takes into account the principles of the Treaty of Waitangi.
		6146 (L3, C4)	Carry out a local mahinga kai activity with direction	Plan a local mahinga kai activity	1.1 The plan describes a local mahinga kai activity. 1.2 The planned actions are consistent with local tikanga associated with a local mahinga kai activity. 1.3 The planned actions are consistent with local maramataka associated with a local mahinga kai activity.
				Carry out a local mahinga kai activity. Range a mahinga kai activity includes the collection, preparation, and distribution of kai.	2.1 The local mahinga kai activity is carried out according to the plan. 2.2 Individual participation within the group contributes to the purpose of the activity. 2.3 The kai is prepared according to local tikanga. 2.4 The kai is distributed according to local tikanga
				Evaluate a local mahinga kai activity.	3.1 The evaluation identifies variations from the plan and their effect.

Graduate Profile Outcome (including indicative credit values)	Programme Guidance	STD No.	Title	Outcomes	Performance Criteria
					<p>3.2 The evaluation identifies aspects of the mahinga kai activity that meet the objectives of the activity.</p> <p>3.3 The evaluation identifies any impact on the whenua, resource, or environment and sustainable management practices.</p> <p>3.4 The evaluation identifies the effectiveness of group co-operation in carrying out the mahinga kai activity.</p>
Kaitiakitanga: (10 credits)					
<p>Exercise kaitiakitanga by supporting whānau, hapū, iwi and other stakeholders to preserve, enhance and promote mātauranga Mahinga Kai for present and future generations.</p> <p>(10 credits)</p>	<p>Identify and explain the responsibility of whānau/hapū in the preservation of mātauranga Mahinga Kai to ensure active enhancement of Mahinga Kai for present and future generations.</p>	<p>25478 (L3, C4)</p>	<p>Describe and compare the origins of the kūmara in accordance with local tikanga.</p>	<p>Describe the origin and varieties of the kūmara, in accordance with local tikanga.</p>	<p>1.1 A traditional Māori theory of the origins of the kumara is described in accordance with local history and tikanga.</p> <p>Range includes but is not limited to – whakapapa, pūrākau, pakiwaitara; evidence of one required.</p> <p>1.2 A contemporary theory of the origins of the kumara is described.</p> <p>Range The Drift Theory, The International Trade Theory, The Chinese Intervention Theory, Thor Heyerdahl Theory; evidence of one is required.</p> <p>1.3 Varieties of kumara are described in accordance with local tikanga and availability today.</p> <p>Range may include but is not limited to – name, size, shape, origin; evidence of three is required</p>
				<p>Compare a traditional Māori theory and a contemporary theory of the origins of the kūmara.</p>	<p>2.1 A traditional Māori theory and a contemporary theory from evidence requirements 1.1 and 1.2 are compared from a tangata whenua perspective in terms of key differences of each theory.</p> <p>Range evidence of two key differences is required.</p>
Pūkengatanga: (10 credits)					
<p>Demonstrate pūkengatanga by applying appropriate contemporary technologies to Mahinga Kai mātauranga and practices.</p> <p>(10 credits)</p>	<p>Utilise technology within operational and theoretical practice to protect and enhance mātauranga Mahinga Kai</p>	<p>25470 (L3, C10)</p>	<p>Plan and prepare for, carry out, and evaluate the propagation of crops in accordance with local tikanga.</p>	<p>Plan the propagation of crops in accordance with local tikanga.</p>	<p>1.1 Objectives for the propagation of crops are planned for in accordance with local tikanga.</p> <p>Range includes but is not limited to – production, quality, seed sources, future prospects Evidence of two is required.</p> <p>1.2 Selection of the site is planned for in accordance with crop requirements and local tikanga.</p> <p>Range environment, adequate light, orientation, aspect, soil variances. Evidence of two is required.</p> <p>1.3 Seasons and times for propagation are planned for in accordance with crop requirements and local tikanga.</p> <p>Range maramataka, observations of Matariki.</p> <p>1.4 Techniques for the propagation of crops are planned for in accordance with local tikanga.</p>

Graduate Profile Outcome (including indicative credit values)	Programme Guidance	STD No.	Title	Outcomes	Performance Criteria
					<p>Range may include but are not limited to – mounding, broadcasting, transplanting, manual planting, mechanical planting, contour, aspect. Evidence of two is required.</p> <p>1.5 Maintenance of propagation bed is planned for in accordance with crop requirements and local tikanga. Range materials, aeration, temperature and drainage. Evidence of two is required.</p> <p>1.6 Deviations to the plan are included in accordance with crop requirements and local tikanga. Range may include but are not limited to – weather conditions, equipment shortage/breakdown, crop diseases. Evidence of two is required.</p>
				Prepare the propagation bed in accordance with local tikanga.	<p>2.1 The soil for propagation is prepared in accordance with crop requirements and local tikanga. Range includes but is not limited to – weed free, friable, moisture content. Evidence of two is required.</p> <p>2.2 The propagation bed is prepared in accordance with crop requirements and local tikanga. Range materials, aeration, temperature and drainage. Evidence of two is required.</p> <p>2.3 Tools required for propagation are prepared in accordance with crop requirements and local tikanga. Range may include but is not limited to – mechanical or manual. Evidence of two is required.</p>
				Carry out the propagation of crops in accordance with the plan and local tikanga.	<p>3.1 Propagation is carried out in accordance with the plan and local tikanga.</p> <p>3.2 Maintenance of the propagation bed and crops is carried out in accordance with the plan and local tikanga.</p>

Graduate Profile Outcome (including indicative credit values)	Programme Guidance	STD No.	Title	Outcomes	Performance Criteria
				Evaluate the propagation of crops.	<p>4.1 The techniques applied in the propagation of crops are evaluated in terms of the outcome of the crop and in accordance with local tikanga.</p> <p>4.2 Any deviations from the plan are evaluated in terms of the effects on the crops and the outcome of the crop and in accordance with local tikanga.</p> <p>4.3 Areas for improvement in the propagation of crop are evaluated in terms of enhancing the future outcome of the crop and in accordance with local tikanga.</p>

Graduate Profile Outcome (including indicative credit values)	Programme Guidance	STD No.	Title	Outcomes	Performance Criteria
		25473 (L3, C10)	Plan and prepare for, carry out, and evaluate the cultivation of crops in accordance with local tikanga	Plan the cultivation of crops in accordance with local tikanga.	<p>1.1 Objectives for the cultivation of the crop are planned for in accordance with local tikanga. Range includes but is not limited to – soil management, land cultivation, crop production, resources, future prospects. Evidence of two is required.</p> <p>1.2 Selection of the site for cultivation is planned for in accordance with local tikanga. Range environment, local knowledge, soil variances. Evidence of two is required.</p> <p>1.3 Seasons and times for cultivation are planned for in accordance with crop requirements and local tikanga. Range maramataka, observations of Matariki.</p> <p>1.4 Techniques for the cultivation of crops are planned for in accordance with crop requirements and local tikanga. Range may include – mounding, broadcasting, transplanting, manual planting, mechanical planting, contour, aspect. Evidence of two is required.</p> <p>1.5 The maintenance of the cultivation bed is planned for in accordance with crop requirements and local tikanga. Range material, aeration, temperature, and drainage. Evidence of two is required.</p> <p>1.6 Deviations from the plan are planned for in accordance with crop requirements and local tikanga. Range may include but is not limited to – weather conditions, equipment shortage/breakdown, crop diseases. Evidence of two is required.</p>
			Prepare the mārā for cultivation in accordance with local tikanga.	<p>2.1 The soil is prepared for cultivation in accordance with crop requirements and local tikanga. Range includes but is not limited – weed free, friable, moisture content. Evidence of two is required.</p> <p>2.2 The cultivation bed is prepared in accordance with the crop requirements and local tikanga. Range materials, aeration, temperature, and drainage. Evidence of two is required.</p> <p>2.3 Tools required for cultivation are prepared in accordance with the crop requirements and local tikanga.</p>	
				Carry out the cultivation of the crop in accordance with local tikanga.	<p>3.1 Cultivation is carried out in accordance with the plan and in accordance with local tikanga practices.</p> <p>3.2 Maintenance of the mārā and crops are carried out in accordance with the plan and in accordance with local tikanga practices.</p>

Graduate Profile Outcome (including indicative credit values)	Programme Guidance	STD No.	Title	Outcomes	Performance Criteria
				Evaluate the cultivation of the crop in accordance with local tikanga.	<p>4.1 The techniques applied in the cultivation of the crop are evaluated in terms of the outcomes of the crop and in accordance with local tikanga.</p> <p>4.2 Any deviations from the plan are evaluated in terms of the effects on the crops, the outcomes of the crop, and in accordance with local tikanga.</p> <p>4.3 Areas for improvement in the cultivation of crops are evaluated in terms of enhancing the future outcome of the crop and in accordance with local tikanga.</p>

Graduate Profile Outcome (including indicative credit values)	Programme Guidance	STD No.	Title	Outcomes	Performance Criteria
		25475 (L3, C10)	Plan and prepare for, carry out, and evaluate the harvesting of crops in accordance with local tikanga	Plan to harvest a crop in accordance with local tikanga.	<p>1.1 Objectives for the harvesting of the crop are planned for in accordance with local tikanga. Range includes but is not limited to – quantity, quality, grading, future prospects. Evidence of two is required.</p> <p>1.2 Optimum times for harvesting are planned for in accordance with local tikanga. Range maramataka, observations of Matariki.</p> <p>1.3 Methods for harvesting the crops are planned for in accordance with crop requirements and local tikanga.</p> <p>1.4 Deviations to the plan are included in accordance with crop requirements and local tikanga. Range may include but is not limited to – weather conditions, equipment shortage/breakdown, crop diseases. Evidence of two is required.</p>
			Prepare to harvest a crop in accordance with local tikanga.		<p>2.1 Tools are prepared in accordance with crop requirements and local tikanga.</p> <p>2.2 Storage is prepared in accordance with the storage plan and local tikanga.</p>
			Carry out the harvesting of the crop in accordance with local tikanga.		<p>3.1 The crop is harvested in accordance with the crop requirements, the plan and local tikanga.</p>
			Evaluate the harvesting of the crop.		<p>4.1 The methods applied in the storage of the crop are evaluated in terms of the outcome of the crop and in accordance with local tikanga.</p> <p>4.2 Any deviations from the plan are evaluated in terms of the effects on the outcome of the crop during storage and in accordance with local tikanga.</p> <p>4.3 Areas for improvement in propagation are evaluated in terms of enhancing the future outcome of the crop and in accordance with local tikanga.</p>

Graduate Profile Outcome (including indicative credit values)	Programme Guidance	STD No.	Title	Outcomes	Performance Criteria
		25477 (L3, C10)	Plan and prepare for, carry out, and evaluate the storage of crops in accordance with local tikanga	<p>Plan to store crops in accordance with local tikanga.</p> <p>Prepare the storage facility in accordance with local tikanga.</p> <p>Carry out the storage of crops.</p> <p>Evaluate the storage of crops.</p>	<p>1.1 Objectives for the storage of the crop are planned for in accordance with local tikanga. Range includes but is not limited to – production, quality, seed sources, future prospects; evidence of two is required.</p> <p>1.2 Storage practices are planned for in accordance with crop requirements and local tikanga. Range may include but is not limited to – indoor, underground; evidence of one is required.</p> <p>1.3 Storage methods are planned for in accordance with crop requirements and local tikanga. Range may include but is not limited to – mahiti, curing, elevated, rua; evidence of two is required.</p> <p>1.4 Deviations to the plan are included in accordance with crop requirements and local tikanga. Range may include but is not limited to – crop diseases, moisture, temperature; evidence of two is required.</p> <p>2.1 Storage facility is prepared in accordance with crop requirements, the plan, and local tikanga. Range traditional and/or contemporary, outdoors or indoors; evidence of two is required.</p> <p>2.2 Equipment required is prepared for in accordance with crop requirements, and local tikanga.</p> <p>3.1 Storage of crops is carried out in accordance with crop requirements, the plan, and local tikanga.</p> <p>4.1 The methods applied in the storage of the crop are evaluated in terms of the outcome of the crop and in accordance with local tikanga.</p> <p>4.2 Any deviations from the plan are evaluated in terms of the effects on the crop outcomes and in accordance with local tikanga.</p> <p>4.3 Areas for improvement in storage are evaluated in terms of enhancing the future outcome of the crop and in accordance with local tikanga.</p>
Rangatiratanga: (10 credits)					
Exercise rangatiratanga to preserve, enhance and promote mātauranga Mahinga Kai a-whānau, ā-hapū, or a-lwi. (10 credits)	Apply appropriate skills, processes, kawa, and tikanga within a Mahinga Kai operational context to protect and enhance mātauranga Taiao held within whānau, hapū, and iwi.	15974 (L3, C5)	Demonstrate knowledge of Māori temperature control systems for crop storage and ngā whare Māori.	Explain Māori temperature control systems in relation to ngā whare Māori. Range may include but not limited to earth, geothermal, wood, raupo, toitoi, rarauwhe/bracken, grasses, rocks. Evidence of three is required.	<p>1.1 Explanation describes three Māori temperature control systems for ngā whare Māori.</p> <p>1.2 Explanation describes effectiveness of three Māori temperature control systems used for whare Māori.</p>

Graduate Profile Outcome (including indicative credit values)	Programme Guidance	STD No.	Title	Outcomes	Performance Criteria
				Explain Māori temperature control systems in relation to crop storage	<p>2.1 Explanation describes tikanga associated with crop storage. Range tikanga – cultural concepts, first principles, best practices, evidential influences. Evidence of one is required.</p> <p>2.2 Explanation describes three Māori temperature control systems related to crop storage. Range explanation must include aspects related to the food value, the retention of tolerable safety levels for human and animal consumption.</p> <p>2.3 Explanation describes appropriate temperature control systems used for different crops. Range at least three different crops.</p>
				Explain how Māori maintained temperature in accordance with local practices and local environment.	<p>3.1 Explanation describes three temperature maintenance strategies used by Māori. Range variability of temperature control application.</p> <p>3.2 Explanation describes temperature maintenance strategies in a local environment in accordance with local practices.</p> <p>3.3 Explanation describes effectiveness of temperature maintenance strategies used by Māori.</p>
				Explain a traditional and contemporary whare Māori and evaluate temperature control systems used.	<p>4.1 Explanation describes a traditional and contemporary whare Māori. Range explanation must refer to functional role, notions and ideas used in design construction and maintenance of a whare Māori.</p> <p>4.2 Explanation describes the temperature control system used in traditional and contemporary whare Māori.</p> <p>4.3 Explanation evaluates effectiveness of temperature control systems used in traditional and contemporary whare Māori.</p>
		6154 (L3, C6)	Explain mahinga kai in relation to the way Māori use taonga of the natural world.	Explain mahinga kai in relation to how Māori connect to the natural world.	<p>1.1 The explanation describes mahinga kai in relation to how Māori connect to the natural world.</p> <p>1.2 The explanation provides local examples of mahinga kai in relation to how Māori connect to the natural world. Range three local examples are required.</p> <p>1.3 The explanation provides reasons for the importance of mahinga kai in relation to how Māori connect to the natural world.</p>
		Explain mahinga kai in relation to how Māori use taonga of the natural world.	<p>2.1 The explanation describes mahinga kai in relation to how Māori use taonga of the natural world.</p> <p>2.2 The explanation provides local examples of mahinga kai in relation to how Māori use taonga of the natural world. Range three local examples are required.</p> <p>2.3 The explanation provides reasons for the importance of mahinga kai in relation to how Māori use taonga of the natural world.</p>		

Graduate Profile Outcome (including indicative credit values)	Programme Guidance	STD No.	Title	Outcomes	Performance Criteria
				Explain local tikanga in relation to mahinga kai activities. Range a minimum of three mahinga kai activities is required.	3.1 The explanation identifies local tikanga in relation to mahinga kai activities. 3.2 The explanation describes local tikanga in relation to mahinga kai activities. 3.3 The explanation provides reasons for the importance of tikanga in relation to mahinga kai activities.
				Explain local maramataka in relation to mahinga kai activities. Range a minimum of three mahinga kai activities is required.	4.1 The explanation identifies local maramataka in relation to mahinga kai activities. 4.2 The explanation describes local maramataka in relation to mahinga kai activities. 4.3 The explanation provides reasons for the importance of local maramataka in relation to mahinga kai activities.

Programme developers may also consider Level 2 unit standards to achieve the graduate profile outcomes. This certificate is listed at level 3 and must comprise a minimum of 40 credits at level 3 or above.

Level 2 Unit Standards		
15975	Demonstrate knowledge of traditional insecticides and fungicides used by Māori	2 Credits
15980	Demonstrate knowledge of te whānau marama	2 Credits
15982	Demonstrate knowledge of tikanga Māori for rākau Māori used for kai	2 Credits
15992	Explain harvesting and processing of a native freshwater and a native marine fish or shellfish species for kai	3 Credits
15994	Demonstrate knowledge of a native freshwater and a native marine plant species used for kai	3 Credits
25469	Describe crop propagation in accordance with local tikanga	4 Credits
25471	Describe the cultivation of crops in accordance with local tikanga	4 Credits
25474	Describe the harvesting of crops in accordance with local tikanga	4 Credits
25476	Describe crop storage practices in accordance with local tikanga	3 Credits
Dependent on the programme of study health and safety practice unit standards may be included.		

(Note: Many of the identified standards can be integrated across ALL the graduate profile outcomes.)