

TOI-OHOMAI



Te Pūkenga

Introduction to the NZ Forestry Sector Micro-credential

Monday 15 to Thursday 18 April, 2024

Apply
now

Learn by doing > 0800 86 46 46 · toiohoma.ac.nz

Introduction to the New Zealand Forestry Sector (Level 5)

Whether you're new to the forestry industry or want to grow your knowledge within the forestry sector, this course is for you. This micro-credential part-time course will help you understand the New Zealand forestry sector and other areas affecting the industry.

Purpose and Outcomes

The micro-credential aims to provide you with a high-level introduction to key elements of the New Zealand forestry sector, an evaluation of your role as participant in the industry and identification of factors currently affecting the industry

Who is this course for?

The targeted learner group are stakeholders in the forestry industry who require a condensed picture of the forestry sector. These may include:

- new entrants to the forestry sector workplace;
- those transitioning from other sectors to work in the forest sector;
- staff from governmental agencies who are tasked with management, compliance and advice;
- investors in the forestry industry;
- land owners such as Maori Trustees, corporates;
- international forestry staff requiring an induction; and those visitors and others interested in opportunities in the forest sector.

Generally targeted to those who will use their new knowledge for administration, management at all levels and investment in the important forestry sector in New Zealand.

Topics you'll cover

Topics may also include an introduction to the following content:

- History of New Zealand Forestry and current context including ownership
- Species, nurseries, propagation
- Commercial Silviculture
- Environmental management & issues
- Forestry on Farms & indigenous forestry
- The commercial forest cycle:
 - Establishment – site prep, planting, weed control
 - Silviculture – thinning and pruning, fertilisation
 - Forest protection - pest management, nutrient deficiency, forest health
 - Harvesting – types, environmental management, inventory & technologies
 - Primary processing – log yard
 - Wood processing and manufacturing
- Factors affecting New Zealand's forests
- Real or simulated examples of forestry sector operations

Presenters include:

- A range of specialist researchers from Scion; forestry and environmental consultants; forestry and processing company staff; forest owners and contractors; and Toi Ohomai Te Pukenga academic staff.

2024 Indicative Fees are \$2,365 for domestic students and \$2,377 for international students.

Venue: Offered at Mokoia Campus, Rotorua.

For Further Information Contact applications@toiohomai.ac.nz or +64 (7) 346 8794

Course Details

FORS5002: Forestry Introduction

Course Level	5	Course Credits	5	EFTS	0.0417
Pre-requisites	Nil		Co-requisites	Nil	
Course Version (New, Type 1 or 2 change)	New	1	Academic Committee Resolution Number	Date Approved	Date Effective
Teacher-directed Learning Hours		12	Total Self-directed Learning Hours	26	Total Learning Hours
Directed Work Integrated / Practical Hours		12			
Total Directed Learning Hours		24			

COURSE AIM

The aim of this course is for students to be introduced to key elements of the New Zealand forestry sector, evaluate their role as participants and identify factors currently affecting the industry.

LEARNING OUTCOMES AND CONTENT

LEARNING OUTCOMES	CONTENT
<ol style="list-style-type: none"> Describe key elements of the New Zealand forestry sector – establishment, silviculture, harvesting, forestry products and services. Identify a range of operational and supporting roles within the sector impacting organisational success. Examine and discuss factors affecting forestry sector operations. 	<ul style="list-style-type: none"> History of New Zealand Forestry, current context including ownership Species, nurseries, propagation Commercial Silviculture Environmental Forestry on Farms The commercial forest cycle <ul style="list-style-type: none"> Establishment – site prep, planting, weed control Silviculture – thinning and pruning, fertilisation Harvesting – types, environmental management Primary Processing Wood products and manufacturing Factors affecting New Zealand's forests Real or simulated examples of forestry sector operations.

ASSESSMENT

Assessment No.	Assessment Type	Learning Outcomes Assessed	Competency
1.	Report – Individual	1 & 3	Pass/Fail
2.	Case study – Group	1, 2 & 3	Pass/Fail

REQUIREMENTS FOR SUCCESSFUL COMPLETION

This course is assessed using ungraded competency-based assessment. Students must achieve a pass for successful completion of course.

DELIVERY METHODS AND RESOURCES

Teaching and learning delivery methods for the micro-credential will use a mix of classroom and field visit practical sessions, showing real or simulated work contexts, as well as online reading and self-directed study.

Specialist Resources, Facilities and Equipment:

Classroom. Transport for field visits. Suitable field visit opportunities. Specialist presenters.

Course Schedule / Timetable: Whakarite Kōhi / Wātaka

The timetable is subject to change and a final copy will be communicated closer to the start

Theory Day 1 (Forest Sector, Research) 8:30am - 5.00pm	
• Welcome – H&S	
• New Zealand Forestry: History & Context	
• Biotechnology in Forestry	
Tea 10:45 (15m)	
• Forest Health	
• Forest Ecosystem Services	
Lunch 12:30pm (30m)	
• Tree Species Site Suitability	
• Forestry Environmental Management	
• Climate Change and Carbon	
Tea 3:15 pm (15)	
• Wood Products and Processing	
• Wrap Up for the day - Assessments/ further reading, key topics, feedback	

Field Trip Day 2 (Silviculture) - 8.30am – 4:30pm	
• Species	Forest operations field trip to local environs/forest with - Establishment, Silvicultural operations, regimes, species, trial, Regimes, farm forestry, NES CF
• Land preparation	
• Establishment	
• Releasing	
• Silvicultural regimes	
• Weed control	
• Pest management	
• Nutrient deficiency	
• Forest health	
• Inventory techniques	
• Forestry on farms	
• NES CF	

Field Trip Day 3 (Harvesting & Processing) Field trip – 8.30 am – 4:30 pm	
• Rooding	Forest operations field trip to local environs/forest and processing facilities
• Harvesting value recovery	
• Marketing of woodlots & small grower forestry	
• Processing	

Theory/Workshop Day 4 - 8.30 am – 4:30 pm	
• Biomass and Energy	
• Forest Inventory & Technologies	
• NES Commercial Forestry (NES CF) (previously Plantation Forestry)	
• Social License to Operate	
Tea 10:00 (30m)	
• Forestry as a Business	
• NZD in Forest Management	
• Industry Structure	
• Case studies – Forestry plan analysis.	
Lunch 12 noon (30m)	
• Continue Case studies & presentation/feedback	
• Presentations	
• Review & Feedback session, assessments, etc.	
• Close	

Important Notes:

1. Toi Ohomai Te Pukenga will follow New Zealand health guidelines with Covid-19. Prior to arriving for peace of mind, we encourage you to take a RAT or similar test if you believe you may have picked up a Covid-19 infection.
2. While all efforts are made to ensure that the course timetable is correct, sometimes change is unavoidable. Please ensure you have provided valid email addresses and telephone numbers.
3. Do you have any Dietary Requirements? If so please notify Gordon at gordon.acres@toiohamai.ac.nz
4. What to bring: Camera/phone, Hi-Viz vest, closed shoes for class & safety boots for silviculture and harvesting operations, sunblock, hat, rainwear, laptop (for your own use). Upon enrolment, you will be able to access Wi-Fi at the course venue and use the computers in the classroom/computer suite. Hi-Viz and hard hats are available for use on field trips).
5. What is provided to you: All presentation files on Moodle Platform; pen & notepad; Course Outline; field trip agendas; during class sessions - morning tea, lunch, afternoon tea; during field trips – transport, water and packed lunches.
6. Classes will most likely be held in a computer suite which you will have access to after enrolment so **early enrolment prior to the start of the course is ideal.**
7. Bring a snack for yourself for the two days of field trips – Day 2 and Day 3.

Māori as Tangata Whenua

Note that Māori connections to forestry and forest land in New Zealand are cultural and spiritual, as well as commercial. Māori interests in plantation and indigenous forestry are steadily increasing, and provide an option for the protection of lands, as well as employment and economic benefits. Content will therefore include the main issues and interests of Māori as kaitiaki, landowners, Māori forestry organisations, and iwi. The outcome will ensure all participants are aware of and support Māori to reach their forestry-related economic and cultural goals through forestry and trees. This micro-credential will support an understanding of the direct benefits Māori landowners can get from trees on their land.

Course Coordinators

Gordon Acres 07 346 8682, 021 190 3766, gordon.acres@toiohomai.ac.nz, Toi Ohomai Te Pukenga

Team: Forestry, Wood Processing, and Health & Safety
Role: Senior Academic Staff member



About

Gordon comes from a background in forest management and has since specialised in academic management and programme delivery. He has a strong working background in academic management, quality standards, business management, wood manufacturing, health and safety, and forestry management. With a sound understanding of vocational education and training Gordon has developed, managed, and/or delivered a range of courses at levels 2 through to 8.

Qualifications

- Graduate Diploma in Professional Practice (Distinction) – Occupational Health and Safety, Otago Polytechnic, 2022.
- Postgraduate Certificate in Business Research, University of Waikato, 2006
- Master of Business Administration (Distinction), University of Waikato, 2005
- Diploma in Management, Henley Management College (Brunel University - UK), 1994
- Honors B (B&A) Executive Forestry, University of Stellenbosch Business School, 1987
- BSc Forestry majoring in Silviculture and Environmental Management, University of Stellenbosch Forestry Faculty (South Africa), 1981

Tim Payn 07 343 5590, 021 866 137, tim.payn@scionresearch.com, Scion.



Team: Forest Systems
Role: Principal Scientist & Research Leader, Enabling Environments

About -

Dr Tim Payn comes from a background in soil science and has specialised interest in forest nutrition management. He is heavily involved in global efforts to support sustainable forest management. Tim currently chairs the 12 Country Montreal Process Technical Advisory Committee which steers policy aimed at defining and measuring sustainable practice.

Qualifications

- PhD (Forestry), University of Canterbury, New Zealand, 1992.
- BSc (Joint Honours), Soil Science and Chemistry, University College of North Wales, 1980.

Research capabilities

- Development of Criteria and Indicators frameworks for Sustainable Forest Management
- Forest productivity modelling within environmental frameworks
- Forest nutritional management and development of decision support systems
- Forests and climate change
- Developing new ideas, research approaches, and programmes

Career highlights

Tim is a Fellow of the New Zealand Institute of Forestry (NZIF) and Chair of the NZIF Foundation that supports forestry education. He is a member of the NZ Forest Owners/NZ Farm Forestry Association Environment Committee, and the New Zealand/Australia Committee for the development of standards for sustainable forest management. He has developed and led numerous research programmes focussing on environmental aspects of forestry and ecosystem services. He had a three year term as Chair of Sustainable Forestry at Toi Ohomai which led to the development of this programme.

Mark Cleland 07 346 8980, mark.cleland@toiohoma.ac.nz, Toi Ohomai Te Pukenga



Team: Forestry, Wood Processing, and Health & Safety
Role: Senior Academic Staff member

Mark graduated from the University of Canterbury in 1980 with a Bachelor of Forestry Science (Hons) degree. He has worked in the forest industry in a range of roles including research (Forest Research Institute), forest consulting (PF Olsen Ltd), and forest management (Carter Holt Harvey Forests Ltd). For the past 29 years, Mark has worked for Toi Ohomai Institute of Technology, where he has been involved in the development and delivery of the NZ Diploma in Forest Management (level 6).

Courses Delivered on the NZ Diploma in Forestry include:

- FMAN.5302 Forest Industry Overview
- FMAN.5303 Forestry Science
- FMAN.5305 Forest Health and Nutrient Management
- FMAN.6301 Growth Modelling and Forest Valuation
- FMAN.6306 Plan Management of Forest Estates
- FMAN.7911 Forestry: Economic, Environmental Factors and Sustainability

Arona Marsters aronam.marsters@toiohoma.ac.nz 07 07 346 8788/ 021 406 094



Team: Forestry, Wood Processing, and Health & Safety
Role: Senior Academic Staff member

Forestry Experience: 43 Years

- New Zealand Forest Service: 2 Years
- Logging Contractor employee: 10 Years
- Self-employed Logging contractor: 11 Years
- FITEC Roving Assessor: 7 Years
- Waiariki - Toi Ohomai - Forestry Tutor: 13 Years

My role as a Senior Academic Staff Member was managing a forest harvesting woodlot training crew until 2023 and responsible for NZ Certificate in basic maintenance and machine operating - Level 3. Much of the training takes place on simulators at the Mokoia Campus and in the field

TOI-OHOMAI



Te Pūkenga

Learn by doing > 0800 86 46 46 · toiohoma.ac.nz