

# 2010 forestry prospectus



waiariki

INSTITUTE OF  
TECHNOLOGY

Whare Takiura

ROTORUA | NEW ZEALAND

The Waiariki National Centre of Excellence  
for the Forest and Wood Industry

# Contents

## Business Management

Bachelor of Applied Management 2

## Biotechnology and Sustainability

Short Course Certificate in Biotechnology 3

Diploma in Sustainable Energy 3

## Forest Management

Diploma in Forest Management 4

National Diploma in Forestry (Operations Management) 5

Graduate Diploma in Management 6

## Wood Manufacturing

Diploma in Manufacturing 7

## Entry Requirements

8, 9

## Waiariki Term and Semester Dates

Back Cover

# Introduction

Kia ora tatou. Welcome to the Waiariki Institute of Technology School of Forestry, Wood Processing and Biotechnology. We are located in the beautiful city of Rotorua, New Zealand, which is famous for its thermal activity, its indigenous tourism and for its extensive forest industry.

The Rotorua region is an outdoor paradise, known for its mountain bike tracks, river kayaking and rafting, bush walks, Māori culture and close proximity to winter ski fields and National Parks.

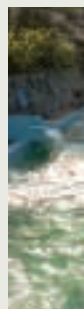
The Waiariki School of Forestry, Wood Processing and Biotechnology is the largest vocational forestry training institute, which was established over 60 years ago by the New Zealand Government, to train students in plantation forest management, sawmilling and wood manufacturing.

We are very proud of our School, which would be keen to welcome international students to join our study programmes in Forest Management, Forest Operations, Wood Processing, Biotechnology and Sustainable energy.

Kia ora

## Jeremy Christmas

Director, School of Forestry, Wood Processing and Biotechnology



# About Us

## New Zealand

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- More than education – an experience not to be missed
- New Zealand is a very beautiful, friendly country
- World-class education

## Waiariki Institute of Technology

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- Government owned public tertiary education institution
- Signatory to the New Zealand Ministry of Education Code of Practice for the Pastoral Care of International Students
- Degree, diploma and certificate vocational courses ideal for intending migrants
- Excellent employment opportunities for graduates
- Staircasing partnerships with universities

## Rotorua – A World Famous Destination

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- Friendly and safe city
- Winner of New Zealand's Most Beautiful City award, Rotorua is surrounded by forest, lakes and beautiful scenery
- New Zealand's most visited tourist destination, hosting well over 1.5 million visitors each year
- Māori cultural events, geothermal activity, spectacular scenery and adventure activities
- More than 500 shops and 60 restaurants in and around the Central Business District
- Average temperatures in the winter range from 8-15°C and 20-30°C in summer
- Rotorua Airport provides direct links to the rest of the country including Auckland, Wellington and Christchurch, as well as Sydney, Australia
- Direct shuttle service is available to and from Auckland International Airport
- Some of New Zealand's best beaches within an hour's drive
- One hour's drive from Lake Taupo with beautiful clear water, rivers and streams, native bush, majestic snowcapped mountain peaks, and three hours from New Zealand's largest ski area
- Commuting to class takes only minutes, and Rotorua enjoys lower living expenses than larger cities



# Business Management

## Bachelor of Applied Management

### Level 7

*Credits 360*

*3 years full-time, or part-time equivalent*

*Semester 1 & 2*

*Rotorua*

### Qualification Details

This degree enables students to take an holistic view of organisations and examine the interface between education, organisations and the community from a socioeconomic perspective. The Bachelor of Applied Management is unique to our region and provides a broad base of management skills and knowledge that are relevant across a range of industries and occupational specialisations. The degree has a variety of pathways, with disciplines in business management, forestry, Māori development and tourism, as well as a newly introduced major\* in conservation and sustainability. Reflective practice, critical analysis and a capstone industry project are key features of the degree.

Graduates will be able to:

- apply contemporary management theories and practice to a selection of work-based problems within the business environment;
  - use both formal and informal networks to execute management practice;
  - explore best practice through the process of critical thinking and reflection;
  - contribute to the discussion of indigenous business and entrepreneurialism;
  - direct the use of resources of a private or public organisation to achieve objectives and long-term sustainability;
- participate in organisational planning activities from operational goal-setting to strategic planning;
  - recognise and respond to significant changes within the environment that impact on an organisation's ability to achieve objectives;
  - use a variety of presentation skills to communicate information to staff within an organisation and also to the wider business community;
  - apply the principles of ethics, respect and accountability to professional practice;
  - engage successfully as a team member; and
  - organise and undertake ethical research in appropriate contexts and based on specific goals.

### Career Opportunities

Various management and analyst positions in a range of specialist fields including: accounting, communications, conservation, environmental planning, finance, forestry management and operations, business development, human resources, learning and development, Māori development and enterprise, marketing, market research, management consulting, operations management, project management, sustainable business, tourism.

*\* Pending approval*

# Biotechnology and Sustainability

## Short Course Certificate in Biotechnology\*

Level 5

Credits 30

1 semester full-time, or part-time equivalent

Semester 2

Rotorua

### Qualification Details

This short course certificate provides the knowledge and practical skills in plant tissue culture, safety in biotechnology, applications of biotechnology, biosecurity and import/export of plants using tissue culture, biofuel crops, molecular biology, micro-organism roles, and fundamental plant growth and development as it relates to tissue culture propagation.

This qualification provides a stepping stone into higher level qualifications, as well as extends skills in other areas such as horticulture, forestry and others.

Graduates will be able to:

- demonstrate the basic biotechnology skills required to move into more specific courses and diplomas.

### Career Opportunities

Technician in a biotechnology lab

\* Pending approval



Eucalyptus tissue culture

## Diploma in Sustainable Energy

Level 5

Credits 120

1 year full-time, or part-time equivalent

Various dates

Rotorua

### Qualification Details

This diploma is designed to create awareness of the social, cultural, global and environmental impacts of energy technology and the principles of sustainable development. The knowledge and practical skills achieved will provide the skills required for employment within the operational areas of manufacturing.

Graduates will be able to:

- understand optimisation of resources, processes and product flows;
- demonstrate knowledge of energy, energy efficiency and production;
- identify alternative energy sources and their efficiencies; and
- understand resources required for production staff and leaders for projects at a tactical level.



Electricity generation through Solar Power

# Forest Management

## Diploma in Forest Management\*

### Level 6

#### Includes:

- National Diploma in Forestry (Operations Management)\* (Level 5)

*Credits 240*

*2 years full-time, or part-time equivalent*

*Semester 1*

*Rotorua*

### Qualification Details

This diploma, which includes an embedded national diploma, offers students the opportunity to extend their skills and knowledge of forest management in commercial forestry in New Zealand. Students will gain a blend of management skills to work in any forestry business in the sector, applied in areas as diverse as forest management, forestry or harvesting operations, contract management, marketing, supply chain management, log product logistics or commercial and financial analysis.

Students will extend their knowledge in a specialist elective strand of their choice, such as forestry, wood processing, management, marketing, commerce and finance, or information technology.

This diploma also provides a pathway toward a degree in forestry science, applied management, computing systems, or commerce.

Graduates will be able to:

- demonstrate sound knowledge of technical and practical forestry;
- work in the forest industry in a technical or management role;
- demonstrate working knowledge of computers and software commonly used in commercial forestry; and
- pursue an area of interest.

### Career Opportunities

Technical roles are available such as forest inventory with forestry support services (forest mensuration or operational quality or health and safety management); research technician or assistant supervisor or planner in a forest management company; graduates with practical forestry experience may qualify for operational management or team leadership/supervisory positions with a forest management company or work as a self-employed forestry or harvesting contractor.

*\* Pending approval*



Lake Rotokakahi (Green Lake) Rotorua

## National Diploma in Forestry (Operations Management)\*

### Level 5

Credits 180

1½ years full-time, or part-time equivalent

Semester 1

Rotorua

### Qualification Details

This national diploma develops the range of operational management skills and knowledge required for people who aspire to manage operations in a commercial plantation forest on a sustainable basis. Students will gain a sound general knowledge of all aspects of the planning and management of commercial plantation forests including people management, technical forestry, applied science, business management, process improvement and financial skills.

Students completing this diploma will also gain practical experience within a commercial forest by undertaking work placements between the course semesters.

Graduates will be able to:

- plan and manage operations in a commercial plantation forest on a sustainable business basis;
- meet the objectives of the forest owner;
- understand the full range of operations undertaken in commercial forestry;
- explain and apply principles of forest management;
- use the most up-to-date planning tools and technology including Geographic Information Systems (GIS) and Global Positioning System (GPS);
- undertake forestry and harvesting operational planning and management;

- demonstrate leadership skills in effective communication, team building and conflict resolution in the workplace; and
- apply knowledge of financial management systems and business planning in the commercial forestry environment.

### Career Opportunities

Technical roles are available such as forest inventory with forestry support services (forest mensuration or operational quality or health and safety management); research technician or assistant supervisor or planner in a forest management company; graduates with practical forestry experience may qualify for operational management or team leadership/supervisory positions with a forest management company or work as a self-employed forestry or harvesting contractor.

\* Pending approval



## Graduate Diploma in Applied Management

### Level 7

*Credits 120*

*1 year full-time, or part-time equivalent*

*Semester 1*

*Rotorua*

### Qualification Details

This graduate diploma is designed to provide students who have an undergraduate qualification with an opportunity to acquire additional specialist knowledge and application in the field of management, with disciplines in business, forestry, health and Māori development. This qualification enables students to develop the skills and knowledge required to successfully manage a sustainable business operation in Aotearoa/New Zealand.

Graduates will be able to:

- apply contemporary management theories and practice to the solution of work based problems within the business environment;
  - utilise a high level of knowledge of essential management principles including leadership, strategic management, change management, project management and operations management;
  - apply research techniques to real world situations as part of developing independent and effective problem-solving;
  - produce, analyse and synthesise empirical data contributing to well-informed decision-making;
  - explore best practice through the process of critical thinking and reflection;
  - participate in organisational planning activities from operational goal-setting to strategic planning;
  - recognise and respond to significant changes within the environment that impact on an organisation's ability to achieve objectives;
- develop the ability to think independently and critically with respect to the management of an organisation's resources in both domestic and international contexts;
  - direct the use of resources of a private or public organisation to achieve the objectives and long-term sustainability;
  - organise and undertake ethical research or applied projects in appropriate contexts, and based on specific goals.

### Career Opportunities

Various management and analyst positions in a range of specialist fields include: accounting, communications, conservation, environmental planning, finance, forestry management and operations, business development, health management, human resources, learning and development, Māori development and enterprise, marketing, market research, management consulting, operations management, project management, sustainable business, tourism.

# Wood Manufacturing

## Diploma in Manufacturing

### Level 5

#### Includes:

- National Diploma in Wood Manufacturing (Level 5)

*Credits 120*

*1 year full-time, or part-time equivalent*

*Semester 1*

*Rotorua*

### Qualification Details

This diploma, which includes an embedded national diploma, produces graduates who will have acquired enhanced leadership, business management, scientific, technological and production management skills.

Graduates will be able to:

- demonstrate broad in-depth knowledge of wood manufacturing processes;
- control processes that require specialist skills, standard or non-standard procedures and routine and non-routine contexts;
- interpret data and determine methods to solve problems;
- manage production within a wood processing context more effectively; and
- assist companies in maximising return on investment through resource optimisation.

### Career Opportunities

Management positions within the manufacturing sector



A student sets up a Weinig planer to produce a timber moulding

# Entry Requirements

## EXTRACT FROM WAIARIKI'S ACADEMIC STATUTE\*

### 20.0 ACADEMIC ADMISSION AND ENTRY

- 20.1 The admission and eligibility criteria for qualifications or courses shall be in accordance with Section 224 of the Education Act 1989. Admission and entry criteria specific to a qualification or course shall be set out in the variations to academic regulations. The entry requirements shall be such that each student can reasonably expect to achieve the learning outcomes of the qualification/course, but shall not constitute an unreasonable barrier to entry. Refusal of entry must be justifiable.
- 20.2 Only the Chief Executive (by delegated authority) may refuse to permit the enrolment of a person as a student at Waiariki, pursuant to Section 224(13) of the Education Act 1989 and any other relevant legislation.
- 20.3 Students shall provide acceptable evidence that admission and entry criteria have been met as a condition of entry to a qualification or course.
- 20.4 All documentary evidence required for admission and entry, including academic records, must be either an original or a certified copy.

### Age

- 20.5 In accordance with Section 20 of the Education Act 1989, no domestic student under the school leaving age of 16 years may be admitted for any qualification or course at the Institute unless, under Section 25B of the Education Act 1989, permission has been granted by the Principal of the school at which the student is enrolled or, under Sections 21 and 26 of the Education Act 1989, the student has been exempted from attending school by a designated officer of the Ministry of Education. Documentary evidence of Principal permission or Ministry exemption is required before the enrolment of a person under the age of 16 years may proceed.
- 20.6 Domestic persons who have attained the age of 20 years shall be eligible for admission to a qualification or course at Waiariki.

### Academic Entry – Domestic Students

- 20.7 The following academic entry criteria is applicable to students under the age of 20 years:
- 20.7.1 entry is open for applicants to certificate and diploma qualifications/courses at levels 1-6.
- 20.7.2 applicants for degree and level 7/8 qualifications/courses must have:
- a minimum of 42 credits at Level 3 or higher on the National Qualifications Framework, including a minimum of 14 credits at Level 3 or higher in each of two subjects from an approved subject list, with a further 14 credits at Level 3 or higher taken from no more than two additional domains on the National Qualifications Framework or approved subjects;
  - a minimum of 14 credits at Level 1 or higher in Mathematics or Pangarau on the National Qualifications Framework; and
  - a minimum of eight credits at Level 2 or higher in English or Te Reo Māori (four credits must be in Reading and four credits must be in Writing). The literacy credits will be selected from a schedule of approved achievement standards and unit standards.
- 20.7.3 applicants for graduate certificates/diplomas must:
- have completed an undergraduate degree in any discipline; or
  - be able to demonstrate at least three years equivalent practical, professional or educational experience (a curriculum vitae must be submitted detailing relevant work experience and educational achievements).

### Academic Entry - International Students

- 20.8 All international students who have the appropriate visa/permit and meet the academic entry and English competency requirements shall be eligible for admission to a qualification or course at Waiariki.
- 20.9 All international students must have a valid New Zealand Immigration Service student visa/permit for the duration of their studies and must fulfil any specific requirements or obligations stipulated under the issue of the visa/permit.
- 20.10 International students who have attained the age of 20 years must provide evidence of a high school diploma or equivalent educational achievement.
- 20.11 International students who have attained the age of 18 years must provide evidence of a high school diploma with no less than "C" grade average (or equivalent).
- 20.12 Eligibility of any international student under the age of 18 years will be determined on an individual basis and approved by the Deputy Chief Executive, Academic Quality and Strategy.

**English Competency**

20.13 International students must be able to demonstrate an adequate level of English that will enable them to meet all health and safety requirements, and to achieve the learning outcomes of the qualification/course on which they enrol.

**Credit and Recognition of Prior Learning (RPL)**

20.18 Students may be admitted at any appropriate point in a qualification by virtue of the grant of credit or as a result of an RPL process.

20.19 Applications for the award of credit or RPL must be completed during the enrolment process, by completing the relevant application form.

20.20 Where there is an application for the award of credit, such credit should have been awarded within the five years prior to the application.

20.21 RPL will be made available for all courses which form part of a programme of study offered by Waiariki.

20.22 The fees charged for the awarding of credit and RPL shall be set at the same level as the course fee.

20.23 Students may appeal an unsuccessful application to the Chief Executive within ten (10) working days of receipt of the decision.

20.24 The Chief Executive may award credit and RPL at his/her discretion.

20.25 Any specific conditions, limitations and requirements under which credit or RPL may be granted for a qualification/course must be identified within the variations to academic regulations. In all other cases, the academic regulations will apply.

20.26 The maximum award that can be granted through cross credit, specified or unspecified credit and/or RPL is two-thirds of the credit value of the qualification being sought. There is no maximum limit to the credit that can be granted through credit transfer.

20.27 Embedded qualifications are not eligible for award through the granting of credit or RPL.

**Disabilities**

20.28 If students have a disability or impairment that is likely to impact on their ability to participate or demonstrate competency in any aspect of their qualification/course, they must contact the Disabilities Coordinator prior to enrolment in order that an appropriate assessment of their needs and suitable arrangements can be made.

20.29 In accordance with Section 60 of the Human Rights Act 1993, the Institute may refuse admission or entry to a student whose disability is such that special facilities and services cannot be reasonably made available to support the student in his/her qualification/course, or where the student's disability may pose a hazard to the student or to others in carrying out the requirements of the qualification/course.

**Special Entry Conditions**

20.30 Variations to academic regulations may stipulate special entry conditions, which may include the following:

- 20.30.1 restrictions placed on entry where an applicant does not meet normal entry requirements;
- 20.30.2 entry that is conditional upon the student attaining satisfactory results in an assessment, course or qualification;
- 20.30.3 limitations on entry where availability of resources and/or Health and Safety requirements may restrict the number of enrolments accepted, or where there are pre-requisite/co requisite requirements.

**Selection**

20.31 Notwithstanding 20.30.3 above selection shall be open to all applicants who meet the required entry criteria.

**Contact Us**

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**Disclaimer**

Every effort has been made to ensure the information contained in this Prospectus is accurate at the time of printing in November 2009. However, no liability can be accepted for any error or omissions or views expressed in this Prospectus. Information is subject to change. All courses available are subject to sufficient enrolments being received.

## Important Dates

New Year's Day	Friday, 1 January
Day after New Year's Day	Monday, 4 January (observed)
Auckland Anniversary Day	Monday, 1 February
Waitangi Day	Saturday, 6 February
Good Friday	2 April
Easter Monday	5 April
Day after Easter Monday	6 April
ANZAC Day	Sunday, 25 April
Queen's Birthday	Monday, 7 June
Labour Day	Monday, 25 October
Christmas Day	Monday, 27 December (observed)
Boxing Day	Tuesday, 28 December (observed)

## Waiariki Term & Semester Dates

### Summer Semester 2010

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Term 6 11 January to 29 January

### Semester One

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Term 1 22 February to 2 April

Term 2 19 April to 25 June

### Semester Two

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Term 3 19 July to 24 September

Term 4 11 October to 19 November

### Summer Semester 2010-11

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Term 5 29 November to 17 December 2010

Term 6 10 January to 28 January 2011

*The dates listed above apply to most courses. Some start dates and term breaks may vary.*