

What can I do with a degree in Forestry Science?

Forestry Science.

What is Forestry Science?

If you care about the management of natural resources and are interested in being part of a huge worldwide industry, of particular national relevance to Aotearoa New Zealand, then forestry could be for you.

Forests are important for their economic, environmental and social benefits they offer society. Forest products, carbon sequestration, erosion reduction, water quality improvement and better biodiversity outcomes are some benefits from forests.

The Bachelor of Forestry Science is a professional degree offered by Te Kura Ngāhere New Zealand School of Forestry. It is an interdisciplinary degree that prepares graduates for managing both production and natural forest resources. It combines the study of core science courses with management, commerce, and technologies.

Forestry Science graduates can pursue rewarding career paths as a forester or explore a specialist position in commercial forestry, conservation and restoration ecology, research, or policy and planning in Aotearoa New Zealand or overseas.

Learn more

It is important to do some research when planning a future career. Speak with, ask questions of, and follow relevant professional bodies, organisations, companies, thought leaders and industry professionals to learn more about:

- Career opportunities, work environments and salary information
- Education and training requirements.

Examples of professional bodies

- Te Pūtahi Ngāherehere o Aotearoa Inc
New Zealand Institute of Forestry
www.nzif.org.nz
- Forest Industry Engineering Association
www.fiea.org.nz
- New Zealand Forest Owners Association
www.nzfoa.org.nz
- Future Foresters NZ
www.futureforesters.com

Career and study information

Some study pathways and degrees have a recommended school background, and some careers may require further study beyond a first degree or additional experience.

Gather helpful information from:

- Subject-specific content at
www.canterbury.ac.nz/study/academic-study/subjects/forestry-science
- Job profiles on career websites like
www.careers.govt.nz
- Job adverts/vacancy descriptions
- Industry professional bodies.

This resource is part of a set of brochures focused on subject majors; many can also be studied as minors.



What skills can graduates gain?

Through studying a degree in Forestry Science, graduates develop a valuable set of skills and competencies that can include:

- Knowledge of Ecology/Biology of Forest Systems
- Awareness of environmental and sustainability concerns
- Economic and commercial awareness
- Computing skills and applied geospatial techniques
- Problem solving and decision making
- Teamwork and project management
- Qualitative and quantitative skills
- Awareness of health and safety
- Bicultural competence.

Applied learning

Students undertake 90 days of practical work experience as part of this degree. This provides you with industry understanding and the confidence to apply your skills.

Learning and networking also take place during field trips and an industry project. Students attend annual residential field trips of 2 to 5

days and also have regular day trips away from campus to learn first-hand. The school has exchange programmes which allow students to complete one or two semesters of their BForSc studies abroad.

What do employers look for?

Many employers look for generic skills such as communication, client/customer-focus, bicultural competence, cultural awareness, teamwork and initiative.

With technology, globalisation, and other drivers changing society, skills such as resilience, problem solving, and adaptability are important.

Skills that are likely to grow in importance include analytical and creative thinking, systems thinking and technological literacy.*

*World Economic Forum: www.weforum.org/agenda/2023/05/future-of-jobs-2023-skills

How can these skills be developed?

- Some skills are gained through studying
- Extra-curricular activities can help, such as getting involved in clubs, mentoring, cultural groups, part-time work or volunteering
- Be open to professional and personal development opportunities, whether it is undertaking work experience, overseas exchange, skills seminar, or joining an industry group.

Where have graduates been employed?

Forestry Science graduates can find themselves working in forestry and resource management organisations relating to:

- Forestry consulting
- Forest management and plantations
- Logistics, log supply and timber products
- Government, regional, environmental or local bodies
- Primary industry companies
- Biosecurity
- Infrastructure
- Engineering
- Research and development
- And other forestry related business.

What jobs and activities might graduates do?

Graduates have been employed as graduate foresters or in more specialist positions – see some examples below.

Note: This list is not exhaustive, and some jobs may require further study, training or experience. It is recommended to start with the section 'How can I gain a sense of career direction?'

What job titles do Forestry Science graduates have?

Forestry science

- Forester
- Forest scientist
- Forestry analyst
- Utility forester

Logging

- Timber machinist
- Harvest and wood flow coordinator
- Timber appraiser

Policy and planning

- Policy and resource planner
- Estate and environmental support planner
- Transport planner
- Harvest planning manager, harvest manager
- Forest development manager
- Forest economist

Management

- Forest manager
- Forestry consultant
- System auditor

Conservation

- Forest ecologist
- Conservationist
- Environmental officer
- Biosecurity officer

Logistics and operations

- Operations supervisor
- Supply chain scheduler
- Distributor
- Forest operations supervisor
- Logistics infrastructure manager
- Forest operations assistant

Engineering

- Transport engineer
- Port operations supervisor

Research

- Data analyst
- Research assistant

Geospatial work

- Using global positioning systems (GPS) and geographic information systems (GIS)
- Assisting the design of geospatial systems and managing equipment

What activities could be part of these jobs?

- Evaluating and analysing forestry issues
- Focusing on tree breeding and genetics, tree physiology, entomology and soil science
- Planning and supervising afforestation, reforestation, and harvesting projects
- Ensuring forest health via environmental protection
- Ensuring environmental and sustainable principles during forest management
- Predicting consumption and supply trends
- Preparing reports to help decision making
- Selecting trees for thinning and harvesting
- Recording the quality and volume of logs taken
- Testing to identify and resolve any issues of disease or pests.

Further study options

UC offers the Master of Forestry Science and the PhD in Forestry involving research in specialised topics.

Further study may facilitate career benefits such as specialist skills, entry into a specific occupation, higher starting salary, faster progression rate, and advanced research capability.

It is important to determine which, if any, further study options align with future career aspirations.

For further UC study options visit:

www.canterbury.ac.nz/study/academic-study

How can I gain a sense of career direction?

Understanding yourself and others is important to gain a sense of direction. This grows with experience; therefore, trying new things and reflecting on an ongoing basis is important.

Career planning checklist

Discover and reflect on:

- Your values, interests, strengths, abilities, and aspirations
- Your connection to whānau, people, and places
- Lifestyle preferences and location
- The skills you want to gain, use, or enhance

Engage in a variety of experiences to learn about:

- How you want to contribute to society, the environment, and global challenges
- The tasks, responsibilities and work environments you prefer
- Your work values, priorities and interests

Learn more and gather career and study information (refer to page one of this resource)

- Speak with people working in careers that interest you; check the realities of a job/career
- Gather information from various sources

Identify your next steps

- Talking to a career consultant can help you to identify your next steps. Visit: www.canterbury.ac.nz/life/jobs-and-careers



What have other students and graduates done?

Explore career stories of students' university experiences and UC alumni who make a difference globally in varied ways.

Visit: www.canterbury.ac.nz/about-uc/why-uc/our-students/student-stories



Amy

Harvest Planning Manager, Rayonier/
Matariki Forests

Bachelor of Forestry Science with Honours

So, why Forestry?

I decided to take up Forestry on a whim, with some input from my grandmother who took me out to visit a farm forester she knew. It wasn't until I was in the thick of it that I knew this is what I wanted to do.

Can you tell us about your first role at Rayonier?

My first graduate position was a Log Production Coordinator at Rayonier and the major part of my role involved supervision of harvesting crews in terms of harvest planning, log quality, health and safety, and the environment. I also determined the weekly log grades to be cut based on customer orders and estimated grade outturn in the bush.

What do you enjoy about your current gig?

My goal is to love what I do. One of the best things about my job is that I get to meet and work with a wide range of people. I visit our crews, do health and safety and environmental audits, plus office work and meetings. It makes it very dynamic as I'm doing something different every day of the week.

How did your course prepare you for what you are doing now?

My degree provided a holistic understanding of the basics required to understand the day-to-day things that occur in the real world of forestry.

What advice would you give to someone considering studying in your degree area?

Definitely give it a go, the career paths are endless!

You learn about a vast range of topics such as management, economics, soils, wood science, harvesting, environmental forestry, biosecurity and the list goes on. Not only that but you get to meet a really awesome bunch of people!

Career guidance

Career services are available for future and current students, and recent graduates. To learn more, contact:

Te Rōpū Rapuara | Careers

T: +64 3 369 0303

E: careers@canterbury.ac.nz

www.canterbury.ac.nz/life/jobs-and-careers

Helpful career insights

- Speaking with employers is key to finding opportunities; not all jobs are advertised
- Developing an online presence is useful as employers can search for future employees online
- Learning about recruitment patterns and where to find opportunities is important.

Study advice

Student Advisors at UC help with questions focused on starting, planning and changing studies. To connect with Student Advisors, visit:

www.canterbury.ac.nz/study/study-support-info/study-support

Future students – contact:

The Future Students team

T: 0800 VARSITY (0800 827 748)

E: futurestudents@canterbury.ac.nz

First year students – contact:

Kaitoko | First Year Student Advisors

T: +64 3 369 0409

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Continuing students – contact:

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www.canterbury.ac.nz/study/academic-study/engineering

