



Bern University
of Applied Sciences



Master's programme in Forest Science

MSc in Life Sciences

► School of Agricultural, Forest and Food Sciences HAFL

Competent experts are in great demand

- 2 The forest and timber industry is facing major challenges both nationally and internationally. The various forest functions (timber production, protection, biodiversity, recreation) are an important prerequisite for life not only in our mountains and urban areas, but also in the countries of the Global South. Safeguarding these functions is becoming more difficult due to continuous shifts in population structure (migration and growth), climate change, increasingly scarce resources and the collapse of timber prices. Sustainable forest management therefore requires a profound understanding of the dynamic interactions between environment, society and economy. Current technologies and digitalisation also offer new opportunities to meet these complex challenges with innovative solutions.

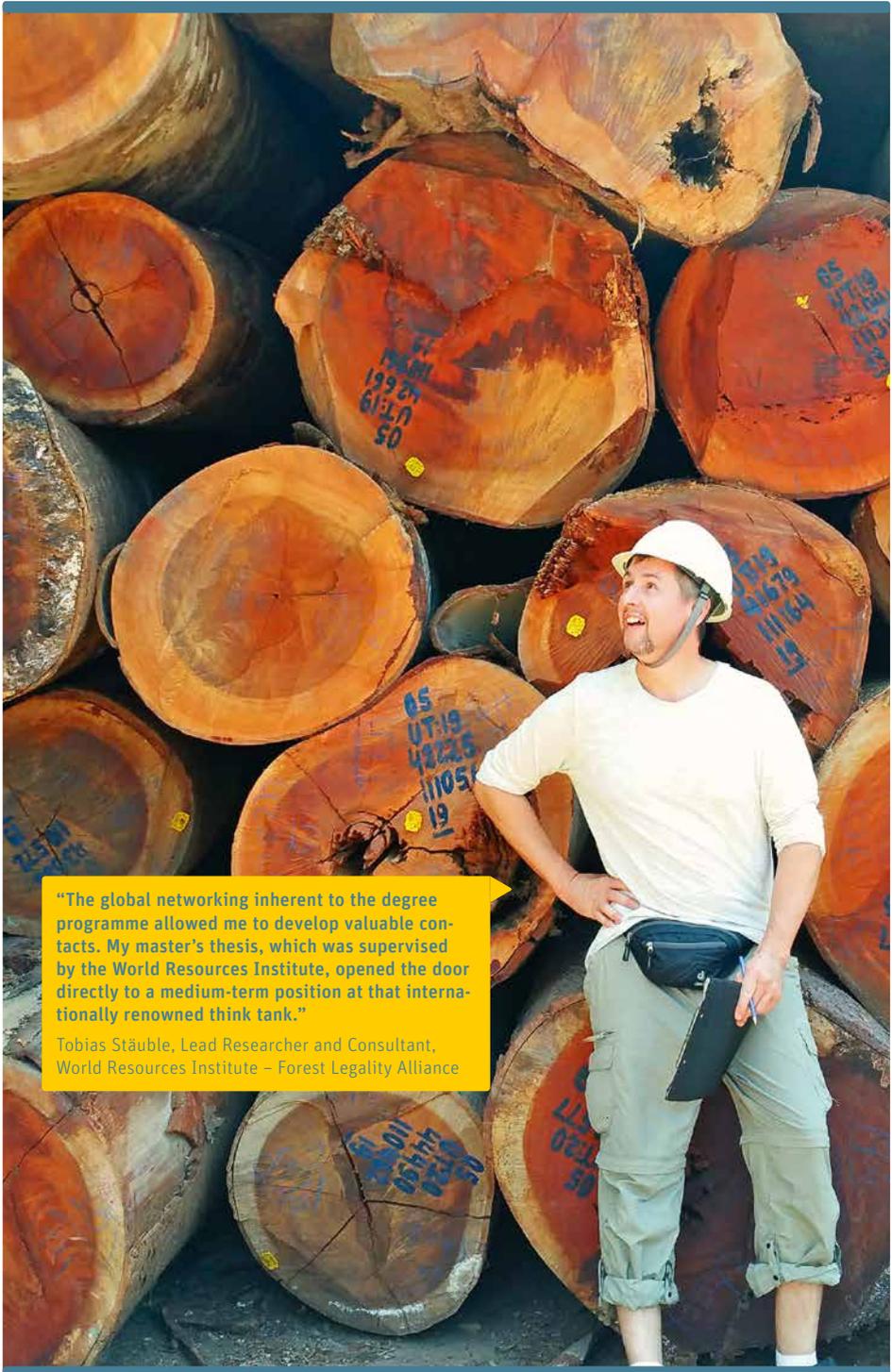
There is great demand for well-educated experts who can design innovative and sustainable solutions in this exciting field. Our MSc in Forest Science equips you with the necessary knowledge and skills.

A study programme which you can tailor to your individual needs

The BFH-HAFL MSc in Life Sciences with specialisation in Forest Science equips you to tackle emerging challenges in the forest sector with sustainable solutions. You will choose one of the following majors:

- International Management of Forest Industries
- Forest Engineering
- Regional Management in Mountain Areas (the Alpine Master's)





"The global networking inherent to the degree programme allowed me to develop valuable contacts. My master's thesis, which was supervised by the World Resources Institute, opened the door directly to a medium-term position at that internationally renowned think tank."

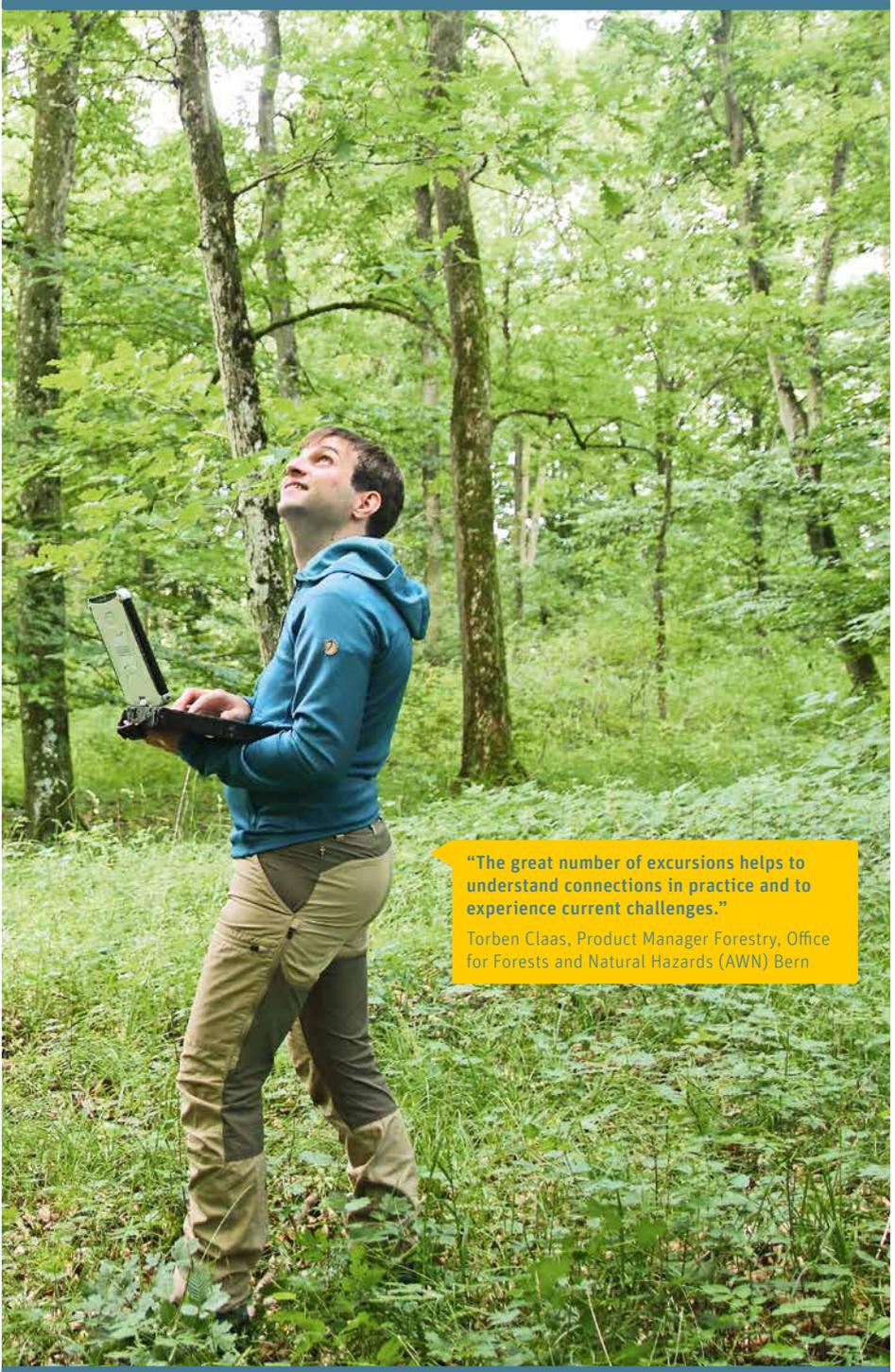
Tobias Stäubli, Lead Researcher and Consultant,
World Resources Institute – Forest Legality Alliance

Well equipped for the future

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With its focus on practicality, the degree programme equips you to take on leadership roles in the forest sector and in mountain regions. In the course of the Forest Science MSc programme, you will acquire sound expertise in a specialism of your choice, becoming a top specialist in your field. You will develop the ability to delve quickly and independently into unfamiliar areas, then implement your new knowledge in practice. You will master a broad spectrum of methodological and leadership skills and learn to manage complex projects competently. You will become adept at making scientific contributions in multidisciplinary teams.

BFH-HAFL's firm focus on practicality in teaching and in its research and consulting projects imparts cutting-edge knowledge and ensures direct relevance to your future professional practice. You will work with experienced specialists operating both in Switzerland and abroad and embedded in broad networks. This will allow you to rapidly build your own network.



“The great number of excursions helps to understand connections in practice and to experience current challenges.”

Torben Claas, Product Manager Forestry, Office for Forests and Natural Hazards (AWN) Bern

International Management of Forest Industries

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In this major you will concentrate on international forest policy and forest-related business management skills. You will gain a firm understanding of the stakeholders and mechanisms in international forest industries. You will also explore the impacts of climate change and many further aspects such as infrastructure, social and political organisation, knowledge exchange, innovation promotion and the recreational and environmental services of forests. In all of this, you will consider the linkages between natural systems and human economies and societies.

Core topics are:

- forests and global change processes
- natural resource management and climate change
- international agreements and law
- logistics and supply chain management
- sustainable production
- industry 4.0 in forest management
- markets for timber, wood products and non-wood products, certification
- assessment of forest products and services

Career prospects

Graduation will open the door to exciting jobs in the management of large forest enterprises and internationally operating companies in the wood industry – and to positions in international environmental, development and sector organisations. You will also gain access to leadership roles in international business consultancies and technical consulting firms, and to leading scientific positions in research and development.

Regional Management in Mountain Areas

- 8 In this major, you will combine your knowledge of ecological and socio-economic issues with the management of regional development for mountain areas. You will study the interrelationships between nature, land use, society and politics.

In particular, you will deal with:

- the agricultural use of the Alpine region
- specific natural hazards and risk management
- current methods for geospatial analysis, such as GIS
- changing living conditions in the Alpine region
- project management
- regional planning
- nature reserves
- tourism
- leadership and human resources management
- public relations and conflict management

The content relates specifically to mountain areas and will be illustrated by examples from the Alps.

Career prospects

Upon completing your studies, you will be well prepared to take on challenging leadership roles in regional development, nature parks and conservation areas or in natural hazard management. You operate at the interfaces of nature, society and economy – working for federations, environmental organisations or tourism. Or you assume an executive function in the agricultural agencies or forestry services of mountain regions.

“Thanks to the many excursions and the contacts established to local experts, the programme has very strong links to practice. Today, I can apply what I learnt not only to mountain areas but also to the most varied types of region.”

Tabea Bischoff, Project Manager, ProNatura Aargau/
CreaNatura GmbH (Protected Area Maintenance)





Forest Engineering

In this major, you will deal with methods of developing and using new technologies in forest ecosystem management, technical production, forest ecology or natural hazard management. By applying the acquired methods, you will deepen your knowledge in one of the above-mentioned core topics of your choice. The approaches developed take into account the interactions between nature, technology, economy and social demands for the sustainable safeguarding of the various forest functions (timber production, protection, biodiversity and recreation).

You will acquire the following methods:

- monitoring in the forest sector
- modelling and simulation
- digital transformation and industry 4.0
- governance in the environmental and forest sector
- landscape development and planning

Career prospects

Having both sound knowledge of new technologies and classical forestry training, you will bring to the forest industry a novel combination of skills. With this degree, you will have the increasingly sought-after know-how to operate successfully at the interface between digitalisation and forestry. We see good job prospects in larger national and international forest enterprises, forestry services, engineering consultancies and NGOs.



Stefan Flückiger, Forest Manager and Operations Manager, Burgergemeinde Bern Forest Operations

“Deployment of modern technologies and processes is vital if a high-price country such as Switzerland is to provide internationally competitive forest services. Graduates can play a key role in leading the sector into the 21st century.”

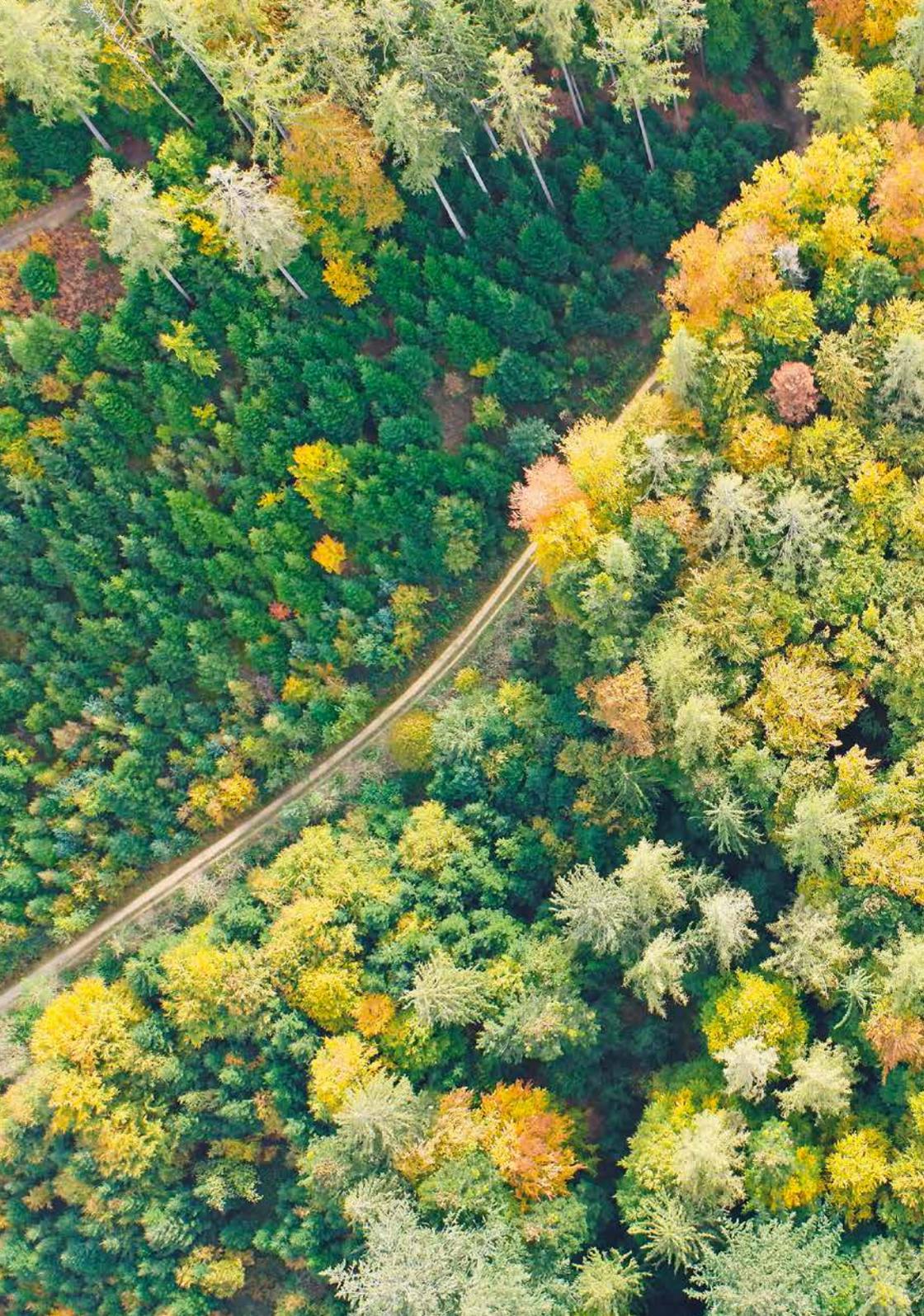
Programme structure

- 12 You will become acquainted with diverse topics, methods and tools in the course of the MSc programme. You will take modules such as Management of Natural Resources and Climate Change or Landscape Development and Planning, which are offered for all the majors in Forest Science. Within your major, you can choose from several major-specific modules with a view to developing your specialist knowledge, strengths and interests.

The core of the degree programme is your master's thesis, in which you specialise in a particular topic. This is generally embedded within a BFH-HAFL research project, but may also be carried out with an external institution or company – for example your employer. Be it questions of global forest policy, forest management in the tropics, the integration of forests in climate strategies, the maintenance of forest functions in the Alps or natural hazard monitoring: you choose your area of special expertise.

Master's thesis – the core of your studies	30 credits
Specialisation modules	30 credits
Cluster-specific modules (Environment Cluster)	9 – 15 credits
Core-competence modules (Data and Business Management)	15 – 21 credits

The degree programme is structured according to different module categories.



At a glance

14 Target group

The MSc programme with majors in “International Management of Forest Industries”, “Regional Management in Mountain Areas” (the Alpine Master’s) and “Forest Engineering” is designed for holders of a bachelor’s degree in agricultural science, forest science, geography, landscape architecture, environmental science or similar disciplines.

Admission

Holders of a bachelor’s degree from a Swiss university of applied sciences in the above disciplines, with a grade point average of at least 5. Students with other qualifications or lower grades can be admitted following an aptitude assessment.

Qualification

Upon successful completion of the programme (90 ECTS credits) you will be awarded the title “Master of Science in Life Sciences with specialisation in Forest Science”.

Duration

Full-time (3 semesters) or part-time (4 – 6 semesters)

Study languages

English and partly German (“International Management of Forest Industries” and “Regional Management in Mountain Areas”)

Your master’s thesis can be written in English, German, French, Italian or Spanish.

Tuition fees

CHF 750 per semester plus registration and examination fees.

Application and Deadlines

You can start your studies in spring or autumn.

The deadline for applications is in April and November before the programme commences.

Further information and registration: www.bfh.ch/hafl

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www.bfh.ch/msc-forest-science