



Bern University  
of Applied Sciences



## MSc in Life Sciences Food, Nutrition and Health

- ▶ Department of Health Professions
- ▶ School of Agricultural, Forest and Food Sciences HAFL

Partner:

**Hes**·SO  VALAIS  
WALLIS

# Shaping specialists at innovative interfaces

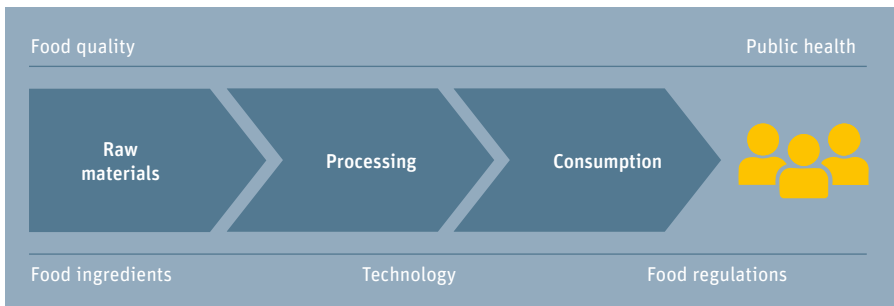
2 The market for food products with a functional or specific dietetic focus is booming. Novel foods using algae, insects and other exotic sources are increasingly finding their way to our plates. Consumers try to maintain a healthy lifestyle through a balanced diet, but also want to indulge without having a guilty conscience. Yet, more and more people are suffering from obesity or food intolerances. On top of that, there is a growing awareness of the impact of food production on the planet as well as on the welfare of people and animals. All this offers food businesses new product and service development opportunities, but also results in growing political pressure to change food laws and regulations with the aim of improving people's diets, well-being and health.



**Klaus Kraemer, Managing Director of Sight and Life\***  
“Tackling malnutrition in all its forms, from undernutrition and micronutrient deficiencies to overweight and obesity, is an urgent societal challenge. Therefore, we need experts with a strong theoretical background and the ability to turn scientific findings into practice, considering local cultures in addition to social and economic constraints.”

## The challenge to reconcile the technically feasible with the socially desirable will continue to grow in the future.

These issues call for well-educated specialists at the interface of food and nutritional sciences who think holistically and come up with innovative ideas leading to practical solutions – along the whole food chain. This begins with needs analysis, goes through production, communication and marketing, and ends with consumption and impact on health – under the consideration of existing food laws and regulations.



\* Sight and Life (SAL) is a Swiss-based foundation dedicated to finding innovative ways of eliminating malnutrition in children and women of childbearing age. SAL has collaborated with HAFL on master's thesis projects and is involved in teaching.

# Fit for research and leadership

3

Studying with us provides you with the opportunity to:

- acquire scientifically sound knowledge in an area of your choice,
- become a specialist able to apply this deepened knowledge in practice,
- foster social and project-management skills,
- strengthen your interdisciplinary competencies through working with specialists across disciplines.

By the time you graduate from this programme, you will:

- hold the qualifications required by employers for management positions,
- know how to work both scientifically and practically,
- be able to independently manage complex projects,
- be an expert sought after by food companies or public health institutions with a focus on nutrition.

These abilities will open doors for you to research and management positions at national and international level.



To translate scientific findings into products or recommendations, research alone is not enough: engaging with stakeholders, managing timelines and balancing expectations are all part of the process.

# Content and structure

- 4 During the degree programme, you will develop your individual strengths while acquiring the necessary knowledge and expertise. You will gain a deeper understanding of food and nutritional sciences, improve your management skills and learn to develop future-oriented solutions to current challenges in the food industry and the nutrition sector.

You will deal with:

- food quality and safety along the whole value chain,
- food law and regulations as well as consumer needs,
- manufacturing processes and their impact on nutritional value,
- target-group-specific nutrition, e.g. for athletes, toddlers, allergy sufferers, elderly people,
- components and active substances of foodstuffs,
- structural and behavioural approaches in public health nutrition.

Our specialisation, food-cluster and core-competence modules offer you a broad range of highly relevant study options.

Master's thesis	30 credits
Specialisation modules	30 – 35 credits
Food-cluster modules	9 – 15 credits
Core-competence modules (Data and Business Management)	15 – 21 credits

The programme is structured in different module categories.

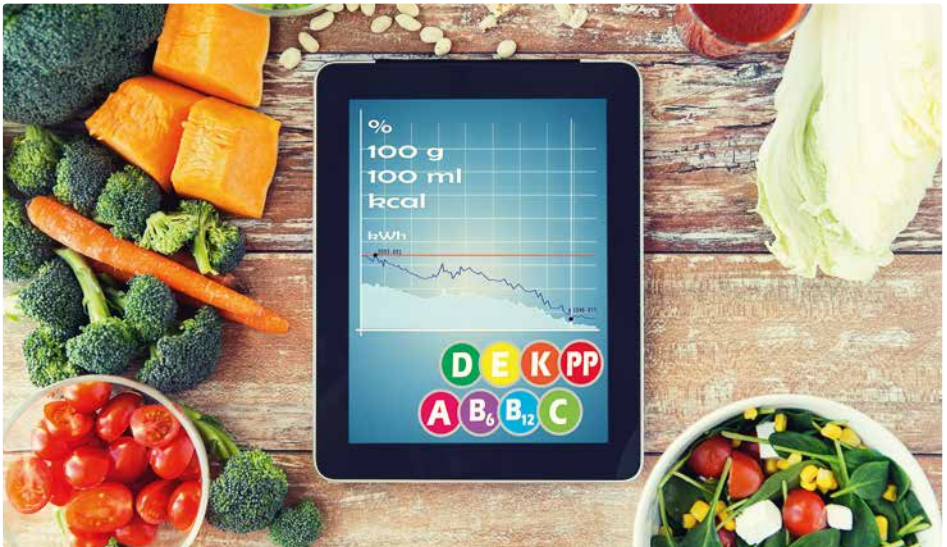
# Unique crossing of disciplines

The cooperation between several specialised departments of universities of applied sciences guarantees a sound, interdisciplinary and practical approach to the programme. It is run by the School of Agricultural, Forest and Food Sciences HAFL and the Department of Health Professions, both of Bern University of Applied Sciences (BFH), together with the Institute of Life Technologies of the School of Engineering – HES-SO Valais-Wallis (HEI) in Sion.

**This programme at the interface of food technology, nutrition and dietetics is unique in Switzerland and its neighbouring countries.**

## **The three partners each contribute their specific expertise**

- BFH-HAFL: Food quality, Food technology, Consumer sciences, Food law
- BFH Health Professions: Nutrition and dietetics, Public health nutrition
- HES-SO Valais-Wallis: Food safety, Food technology, Food chemistry, Foodomics



Understanding the potential of raw materials and the opportunities created by processing to turn them into high-quality foods with a tailored nutritional value

# Flexible, practical and individual

- 6 Our degree programme is run in close cooperation with partners from research, the economy and society. Through case studies, round tables and excursions, you will have direct contact with representatives from research and industry. A high proportion of individual work enables you to structure your studies flexibly. The programme allows you to develop your individual strengths and interests. You will deepen your knowledge of food and nutritional sciences as appropriate to your specialisation. You will enjoy a great deal of freedom when choosing your modules. This allows you to assemble your individual course of study in alignment with the topic chosen for your master's thesis.



**Roxanne Guillod-Magnin, Project Manager, Aha! Swiss Allergy Centre**

"I am a chemist and this master's degree completed my profile. aha! was looking for a scientist with a solid background in nutrition and my 'atypical' profile convinced them."

## Master's thesis – the backbone of your studies

In your master's thesis, you will address a practical issue relating to food technology or nutritional science in a scientifically sound manner. Possible topics range from consumer perception of innovative food technologies and new functional food components to the eating behaviour of specific groups, and further exciting challenges at the interface of food production and nutrition. You can either select your project from existing research activities or come up with your own ideas and we will help you find the assistance you need.

## Your career prospects

Upon completion of this programme, you will be well qualified to take on demanding management-level positions or to work in applied research, for example in product development in the food industry or in research positions at private or public research institutions. The nutritional advisory services of the retail sector are also potential employers, as are specialist food producers and government agencies. You can take on management positions in NGOs, charities or counselling services and projects in the food and nutrition domain. You will be ready to work in a national or international environment.



**Steffi Schluechter, Research Associate, Federal Food Safety and Veterinary Office**

"This master's degree upskilled my knowledge and profile as a dietician. I particularly liked topics related to food technology. Thanks to this master's degree, I got my current job."

# Overview

## Target audience

The master's programme in Life Sciences - Food, Nutrition and Health is aimed at graduates in Food Science, Nutrition and Dietetics, or similar disciplines.

## Admission

Bachelor's degree graduates from a Swiss university of applied sciences in the above-mentioned disciplines with a minimum grade point average of 5. Students holding other types of degrees or lower averages may be admitted based on an aptitude assessment.

## Degree

With the HAFL programme you will earn 90 ECTS credits and the degree "Master of Science in Life Sciences with specialisation in Food, Nutrition and Health" from Bern University of Applied Sciences.

## Duration

One-and-a-half years of full-time study (three semesters). The studies may also be completed part time (six to seven semesters).

## Teaching language

English. Master theses may be written in English, German or French.

## Tuition fees

CHF 750 – 950 per semester plus registration and examination fees.

## Cooperation

The MSc in Life Sciences is a cooperation between four Swiss universities of applied sciences: BFH, FHNW, HES-SO and ZFH.

## Registration and deadline for registration

Studies may commence in autumn or spring. The deadlines for registration are 30 April for autumn commencement and 30 September for spring commencement.

Further information and registration: [www.bfh.ch/hafl](http://www.bfh.ch/hafl)

# Further information

## **Bern University of Applied Sciences**

School of Agricultural, Forest  
and Food Sciences HAFL

Länggasse 85

CH-3052 Zollikofen

Switzerland

[msc-fnh.hafl@bfh.ch](mailto:msc-fnh.hafl@bfh.ch)

[www.bfh.ch/hafl](http://www.bfh.ch/hafl)

## **Contacts**

BFH-HAFL:

Prof Daniel Heine

Head of Specialisation

T +41 31 910 21 11

[daniel.heine@bfh.ch](mailto:daniel.heine@bfh.ch)

BFH Health Professions:

Prof Dr Franziska Pfister

T +41 31 848 37 93

[franziska.pfister@bfh.ch](mailto:franziska.pfister@bfh.ch)

HES-SO Valais-Wallis:

Prof Dr Wilfried Andlauer

T +41 27 606 86 37

[wilfried.andlauer@hevs.ch](mailto:wilfried.andlauer@hevs.ch)