Bachelor's and Master's degree programmes

**Bachelor of Science in**
- Biotechnology
- Chemistry
- Food Technology
- Natural Resource Sciences
- Facility Management

**Master of Science in**
- Natural Resource Sciences
- Facility Management
- Life Sciences
**Experience our world with Augmented Reality!**

All you need is a smartphone or tablet and the ZHAW LSFM-AR app. When you scan the QR code below and launch the app, you’ll be immersed in “augmented reality” (AR). The pages with AR application are marked accordingly in the brochure. Have fun!

Please note that parts of our video and website content are only available in German.

Scan this code and start the app.

---

**At a glance**

### Bachelor’s degrees (BSc)

**Study programmes:** Bachelor of Science ZFH in Biotechnology, Chemistry, Food Technology, Natural Resource Sciences, Facility Management

**Cost:** CHF 720 per semester (subject to change), plus a small fee for membership of the ASVZ sports association and the VSZHAW student association. Foreign students pay an additional CHF 500 per semester; detailed information can be obtained from the Academic Office or the respective Student Advisor.

**Workload:** 180 credits (ECTS); 1 credit corresponds to 25 to 30 hours of work.

**Preparation:** We offer preliminary courses in mathematics, chemistry, physics, biology and plant knowledge, as well as a foundation laboratory course for those new to working in laboratories in addition to the general laboratory introductory programme for all students.

**Dates:** Start of studies: calendar week 38 (mid-September); for all first semesters calendar week 37. Registration deadline is 30 April.

**Further information:**
- [www.zhaw.ch/lsfm/bachelor](http://www.zhaw.ch/lsfm/bachelor)
- Studiensekretariat.lsfm@zhaw.ch / +41 58 934 59 61
- Open days (Infotag): [www.zhaw.ch/lsfm/veranstaltungen](http://www.zhaw.ch/lsfm/veranstaltungen) (in German only)

### Master’s degrees (MSc)

**Study programmes:** Master of Science ZFH in Natural Resource Sciences, Facility Management, Life Sciences

**Cost:** CHF 720 per semester (subject to change), plus a small fee for membership of the ASVZ sports association and the VSZHAW student association. Foreign students pay an additional CHF 500 per semester; detailed information can be obtained from the Academic Office or the respective Student Advisor.

**Workload:** 90 credits (ECTS); 1 credit corresponds to 25 to 30 hours of work.

**Dates:** Start of studies: calendar week 38 (mid-September), for Life Sciences there is an additional week: calendar week 8 (mid-February). Registration deadline is 30 April, or 30 October for those starting in February.

**Further information:**
- [www.zhaw.ch/lsfm/master](http://www.zhaw.ch/lsfm/master)
- Studiensekretariat.lsfm@zhaw.ch / +41 58 934 59 61
- Open days (Infotag): [www.zhaw.ch/lsfm/veranstaltungen](http://www.zhaw.ch/lsfm/veranstaltungen) (in German only)
Bachelor’s and Master’s degree programmes

Biotechnology

Biotechnology is the interdisciplinary combination of biological, medical and technical sciences. It is used to identify, analyse or produce useful substances from microorganisms, animal and plant cells or their components. The course also prepares you to use biotechnological methods to create substances that are difficult or impossible to produce using chemical-synthetic processes.

You can choose between two specialisations: biotechnology and pharmaceutical technology. After successfully completing your degree, you will have the opportunity to work as a specialist in biotech companies, the pharmaceutical industry, the food industry, in biomedicine as well as in the chemical, cosmetics or environmental industries. If you are looking for a career in management positions or in international companies, you can sharpen your profile and broaden your career opportunities with the Life Sciences Master’s after your Bachelor’s.

Student Advisor: Susanne Dombrowski, studienberater.bt.lsfm@zhaw.ch

Chemistry

Chemistry deals with the conversion of various starting materials into substances with new chemical, physical and biological properties. This opens up many exciting new applications. Studying chemistry prepares you to develop new products, analytical methods and production processes, and to use these skills, for example, to participate in securing new raw materials or energy supplies.

The two specialisations, Chemistry and Biological Chemistry, enable you to fully immerse yourself in these subjects and further refine your expertise. As a chemist with a degree from a university of applied sciences, you will be in great demand on the job market, and not just in the chemical and pharmaceutical industries, especially because your studies are so practice-oriented. You will assume responsibility in the areas of the laboratory, operation, technology or projects. Should you pursue the consecutive Life Sciences Master’s with specialisation in Food and Beverage Innovation, you will learn how food business models are created and how they can be disseminated worldwide.

Student Advisor: Achim Eckar, studienberater.ch.lsfm@zhaw.ch

Food Technology

Food today is more diverse and innovative than ever before: vegetarian, vegan, slow food, meat, high-protein, all-natural, insects and the topic of food waste is becoming increasingly important. Having obtained a Bachelor’s degree in Food Technology, you will understand how healthy, full-bodied and sustainable food is made. You will have acquired the skills to work as an engineer, manager or entrepreneur – regionally, nationally or internationally. You will be involved in product development, food production, quality management, food marketing, nutrition science, sustainability, digitisation, automation and business management.

Three specialisations, Food Safety & Quality, Food Management & Sustainability, Food Processing & Automation and a wide range of options allow you to tailor your studies individually. In the consecutive Life Sciences Master’s with specialisation in Food and Beverage Innovation, you will learn how food business models are created and how they can be disseminated worldwide.

Student Advisor: Arian Schnyder, studienberater.tm.lsfm@zhaw.ch

Natural Resource Sciences

The environmental sector is diverse, constantly in motion and demands flexible specialists with broad interdisciplinary knowledge. As a natural resource scientist, you will contribute to tackling current environmental challenges. You will work in areas where there are conflicting interests between economic and social demands and the sustainable use of resources. The Natural Resource Sciences programme is an ideal starting point for this.

You choose one of five specialisations: Biological agriculture and horticulture, Renewable energies and eco-technologies, Nature management, Environmental systems and sustainable development, and Urban ecosystems. You can further individualise your studies with a minor and through the wide range of elective modules. Holding a Bachelor’s degree in Environmental Engineering, you will have many opportunities in the environmental labour market – in private companies, governmental agencies or non-profit organisations. Should you pursue the consecutive Master’s in Natural Resource Sciences, you will be able to further sharpen your profile and deepen your specialist knowledge.

Student Advisor: Bettina Hendry, studienberater.lm.lsfm@zhaw.ch

Facility Management

The Swiss real estate and facility management (FM) sector is a billion-dollar market. Whether an office building or residential property, whether a shopping centre, airport or hospital – FM shapes these living environments. During your studies you will learn how to manage real estate sustainably using the latest technologies, how to create attractive working environments and how to organise innovative services and events. Your objective is to make people feel comfortable.

There are four specialisations to choose from during your studies: Real estate, Building systems, Workplaces or Services and events. In the fourth semester you will complete an internship whereby you will apply your theoretical knowledge in practice, gain valuable experience and expand your professional network. Well-trained FM specialists and managers are in great demand in the business world. After graduation, you will work in a wide variety of industries and dedicate yourself to exciting tasks in middle management. Should you pursue the consecutive Master’s degree in Facility Management, you will be able to sharpen your profile and thus have the best career opportunities.

Student Advisor: Irene Arnold, studienberater.fm.lsfm@zhaw.ch
Master’s degree programmes

Natural Resource Sciences

Environmental challenges require inter- and transdisciplinary as well as integrative skills. The Master’s programme therefore combines competencies in the natural and social sciences with technological know-how. There are three main areas to choose from:

Agrofoodsystems: Sustainable food production in connection with world food supply, climate change, resource consumption and environmental compatibility.
Biodiversity & Ecosystems: Terrestrial and aquatic ecosystems, taking into account biodiversity and sustainable development.
Ecological Engineering: Engineering, ecology and holistic thinking for a sustainable society.

As a Master’s graduate, you will assume assistant, management positions.

Student Advisor: Martina Weiss, master.iunr@zhaw.ch

Facility Management

Facility Management (FM) supports the core processes of a company and makes a significant contribution to its success, sustainability and strategic positioning. Understanding real estate, leading employees and stimulating innovation – this is what the English-language Master of Science in Facility Management is all about.

Graduates from FM-related courses such as architecture, civil engineering, business administration, building services engineering or the catering and hospitality industry are admitted. During the three semesters, you will develop strategic and analytical skills in various modules. You will expand your know-how in the core FM areas of real estate, service and workplace management and explore current trends in the Advanced FM module. During your studies you will be integrated into research projects. As an FM Master’s graduate, you will be extremely sought-after in the national and international job market and will be able to assume specialist and management positions.

Student Advisor: Irene Arnold, master.fmf@zhaw.ch

Life Sciences

The life sciences cover a diverse range of areas, such as the chemical and pharmaceutical industry, the food and beverage industry, medical technology and the environmental sector.

The focus is on the development, production, marketing and distribution of life science products, as well as on advanced manufacturing equipment.

In the Master’s of Science in Life Sciences programme you will study at the forefront of science. You can choose from one of the four specialisations listed on the right and thus deepen your technical and research expertise. From the start of your studies, you will be part of a research group at the respective institute and combine theory and practice. You will also benefit from the knowledge and network of the participating partners, the BFH Berner Fachhochschule, the FHNW Fachhochschule Nordwestschweiz and the HE-SO Haute Ecole Spécialisée de la Suisse occidentale.

Applied Computational Life Sciences

Specific skills in data management, modelling and simulation are becoming increasingly important. Algorithms, Machine Learning and Pattern Recognition are just a few relevant keywords. Masters of this specialisation are increasingly in demand and work, for example, as specialists or managers in the fields of bioinformatics and simulation.

Student Advisor: Manuel Gil, gilm@zhaw.ch

Chemistry for the Life Sciences

In the life sciences, competencies in chemistry, biochemistry, bioanalytics, green chemistry, material sciences and nanotechnology are in great demand. Master’s graduates with this specialisation cover this area and are highly sought-after in the chemical and pharmaceutical industries, as well as in companies in the food industry and biotechnology.

Student Advisor: Jürgen Stohner, sthj@zhaw.ch

Food and Beverage Innovation

Changing consumer behaviour and social change constantly require new solutions in the food and beverage sector. There are innovations to be made, and products and processes need to be developed sustainably. A Master’s degree in this specialisation will open up many doors of opportunity for you.

Student Advisor: Sandra Buri, sbr@zhaw.ch

Pharmaceutical Biotechnology

Many drugs today are based on active substances that are developed in complex biotechnological processes and manufactured commercially. Masters of this specialisation are in demand in the growing national and international markets, including such fields as antibody and vaccine production, development of gene and cell therapeutics, and medical diagnostics.

Student Advisor: Regine Eibl, eibs@zhaw.ch
About us

The ZHAW

With over 13,000 students in 28 Bachelor’s and 18 Master’s programmes, the ZHAW is one of Switzerland’s leading universities of applied sciences, with eight schools under its umbrella. All ZHAW locations – Wädenswil, Winterthur and Zurich – are situated within the economically strong Greater Zurich Area. Each of the three campuses offers a high quality of life, and are all easily accessible by public transport.

www.zhaw.ch

The School of LSFM

The School of Life Sciences and Facility Management (LSFM) is located in Wädenswil at a most beautiful location on the western bank of Lake Zurich. Here, teaching and research in the fields of environment, nutrition/food, health and society is carried out: practically-oriented, creative, passionate and reflective. Approximately 1,500 students are currently enrolled in five Bachelor’s and three Master’s programmes. A wide range of continuing education courses and specialist conferences round off the programme. With approximately 600 employees, the university is the largest employer in Wädenswil. The attractive and modern campuses are located at Grüental and Reidbach, and each offer a canteen and common rooms. The green areas of the Grüental campus are not only a place of learning and research, they also inspire the public with their extensive collection of plants.

www.zhaw.ch/lsfm

Education and training

The Bachelor’s programme leads to a professional qualification, imparts practice-oriented specialist knowledge, general education and working methodology, and strengthens the personal competencies of the students. Five study programmes are offered. Study in the Bachelor’s degree programmes in biotechnology, food technology, environmental engineering and facility management is paperless.

The Master’s programme enables specialisation in and deeper exploration of the original field of study, and serves the acquisition of additional qualifications. The programme comprises three consecutive Master’s programmes. Bachelor’s and Master’s programmes can be taken part-time or full-time. Tailored and practice-oriented courses, conferences and continuing education courses (CAS, DAS, MAS) extend the range of educational opportunities at the Wädenswil and Zurich locations.

www.zhaw.ch/lsfm/studium

Research and Development

At the LSFM, five research-strong institutes in the fields of applied simulation, chemistry and biotechnology, facility management, food and beverage innovation as well as environment and natural resource sciences make an important contribution to meeting economic and social challenges and improving quality of life. The university’s close cooperation with industry, public authorities, associations and other research institutions ensures the mutual transfer of knowledge and technology.

www.zhaw.ch/lsfm/forschung

Entrepreneurship

Together with other initiators, the ZHAW is actively involved in the Wädenswil start-up organisation “grow”. Advice, inexpensive rooms and the immediate proximity to the university facilitate the step into self-employment. In this way, students become entrepreneurs and ideas turn into products.

www.grow-waedenswil.ch

With the entrepreneurship@zhaw programme, the university also offers a contact and advice point for employees interested in setting up their own business.

www.zhaw.ch/entrepreneurship
**Important to know**

**Accommodation**

In Autumn 2021, a new residential building for students will be completed near the Wädenswil railway station and the ZHAW sites. Student accommodation will be provided by the student housing cooperative WOKO (www.woko.ch). You can also find vacant apartments and rooms in Wädenswil and the surrounding area at: www.studentisches-wohnen-waedenswil.ch

**Culture and sports**

Our wide range of leisure activities will help you to balance your studies. The “ZHAW-Feierabend-Programm” (Extra-curricular programme) offers language, theatre and painting courses, a literature club, a reading group, an ethics lounge and much more. Most courses are free of charge.

As a student at the ZHAW, you are also entitled to use the sports facilities of the Academic Sports Club Zurich (ASVZ). This also includes the new Cardio-Center in Wädenswil. Membership of the ASVZ appears on the same invoice as that with the tuition fee. www.asvz.ch

**International exchange**

If you would like to complete part of your Bachelor’s degree abroad, the ZHAW offers you numerous opportunities. The LSFM department is currently networked with over 70 partner universities in 15 European countries as part of the Swiss European Mobility Programme (SEMP). In addition, there are partner agreements with universities elsewhere abroad. A stay at a host university is possible from the third semester onwards and can last one or two semesters.

More than 80 countries from all continents participate in the IAESTE (International Association for the Exchange of Students for Technical Experience) exchange programme. During the breaks between the semester and the module examinations, you can gain valuable experience abroad with an IAESTE internship.

Your Student Advisor and the specialists in the International Office (IO) will be happy to help you.

www.zhaw.ch/lsfm/international

**Students’ Association**

The Student Association of the ZHAW (VSZHAW) represents students vis-à-vis public authorities, school management and student associations abroad. It also offers numerous activities and publishes the journal “Brainstorm”. When you start your studies, you automatically become a member and pay a small fee in addition to the tuition fee, also appearing on that invoice.

www.vszhaw.ch

**Alumni**

The two alumni organizations ZHAW Life Sciences and ZHAW Facility Management are available to help you network after your studies. They organise events centred on various topics, specialist lectures and visits, and maintain contact with professional associations and other alumni organisations.

www.alumni-zhaw.ch/ls
www.alumni-zhaw.ch/fm
The ZHAW is one of the leading Swiss universities of applied sciences. The School of Life Sciences and Facility Management currently has around 1500 students and employs more than 600 people. The educational programme comprises five Bachelor’s and three Master’s degree programmes as well as a broad range of further training and education courses.

With our expertise in life sciences and facility management, we make an important contribution to meeting social challenges and to improving quality of life in the areas of environment, food and health. Five research-strong institutes in the fields of chemistry and biotechnology, food and beverage innovation, natural resource sciences, applied simulation and facility management make this contribution in the form of research, development and services.