



Life Sciences and
Facility Management

Bachelor's and Master's degree programmes

Choose from seven bachelor's and four
master's degree programs



At a glance

Bachelor's degrees (BSc)



Degree programs: Bachelor of Science at ZHAW in

- Applied Digital Life Sciences
- Biomedical Laboratory Diagnostics
- Biotechnology
- Chemistry
- Facility Management
- Food Technology
- Natural Resource 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: 180 credits (ECTS); 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.



Duration: 6 semesters full-time; part-time is possible in agreement with the Programme Director.



Admission requirements: Professional baccalaureate, technical baccalaureate, grammar school baccalaureate or equivalent. Before a student may commence the desired degree programme, evidence of either an apprenticeship or at least 12 months of work experience related to the field of study must be provided.



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/lisfm/bachelor
 Studiensekretariat.lisfm@zhaw.ch / +41 58 934 59 61

Master's degrees (MSc)



Study programmes: Master of Science ZFH in

- Circular Economy Management (CEM)
- Preneurship for Regenerative Food Systems (PREFS)
- Real Estate & Facility Management (REFM)
- Natural Resource Sciences (ENR)
- Life Sciences (LS) with four specializations



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 depending on the program: Week 8 or Week 38. Application deadline is April 30th (for Week 38 start) or October 31st (for Week 8 start).



Duration: 3 semesters full-time; part-time is possible in agreement with the Programme Director.



Mentoring: Before starting your studies, you will work out your individual study plan with your tutor, and discuss and determine both your educational goals and the topic of your Master's thesis.



Admission requirements: A Bachelor's degree or an equivalent qualification in a related field of study is required for admission. Additional criteria may apply depending on the specific program of study.



Further information:
www.zhaw.ch/lisfm/master
 Studiensekretariat.lisfm@zhaw.ch / +41 58 934 59 61

Bachelor's degree programmes

Applied Digital Life Sciences

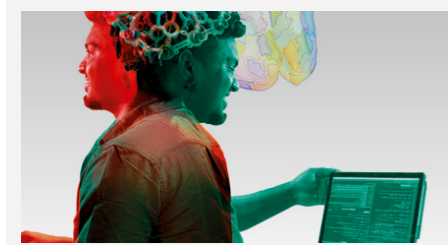
The rapid advancement of digitalization is transforming all areas of life and professions. The fields of Life Sciences, including biology, biotechnology, environment, agro-food, chemistry, and medicine, are particularly affected. This transformation leads to the generation of vast amounts of data, which, when processed intelligently, can drive innovation. The smart utilization of this data enables early disease detection, data-driven development of new food processes, and species conservation through drone monitoring, among other possibilities.

The new and unique Bachelor's program combines Data Science and Life Sciences and can be pursued on a full-time or part-time basis. Three specializations are available to choose from: Digital Labs and Production, Digital Health, and Digital Environment. With a Bachelor's degree in this program, you will be equipped to take on key roles in companies, actively shaping the world of tomorrow using digital and data-driven methods.

www.zhaw.ch/icls/bachelor

Studienberatung:

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Biomedical Laboratory Diagnostics

Biomedical Laboratory Diagnostics (BMA) operates at the interface of biomedicine, laboratory analysis, new digital possibilities, and patient well-being. It meets the growing demands of diagnostics and therapy and makes a significant contribution to the healthcare of the population. The new Bachelor's program combines high scientific and technical standards with the thinking and practices of a healthcare profession. It is the result of a collaboration between the ZHAW departments of Life Sciences, Facility Management, and Health.

Throughout the program, you will acquire the necessary competencies to assume key roles as a sought-after professional in medical laboratories, biomedical research and development, or biomedical diagnostics. The study curriculum is structured into seven areas: Scientific Foundations, Analytical Processes, Laboratory Diagnostics, Public Health and Professional Practice, Internship, Scientific Research/Bachelor's Thesis, and Management.
www.zhaw.ch/bsc-biomedizinische-labordiagnostik

Studienberatung:

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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: Bioprocess Development and Bioengineering or Molecular, Micro- and Cell Biology. 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.

www.zhaw.ch/icbt/bachelor-biotechnologie

Studienberatung:

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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 programme, you will be able to sharpen your profile and thus have the best career opportunities, particularly in international companies.

www.zhaw.ch/icbt/bachelor-chemie

Studienberatung:

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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.

www.zhaw.ch/ifm/bachelor

Studienberatung:

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Food Technology

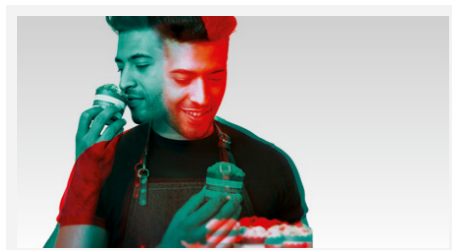
Food today is more diverse and innovative than ever before: vegetarian, vegan, slow food meat, high-protein, all-natural, insects and the topic of food waste is becoming increasingly important. Having obtained a Bachelor's degree in Food Technology, you will understand how healthy, full-bodied and sustainable 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.

www.zhaw.ch/ilgi/bachelor

Studienberatung:

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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.

www.zhaw.ch/iunr/bachelor

Studienberatung:

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Master's degree programmes

Circular Economy Management

The Master of Science in Circular Economy Management is an interdisciplinary program that combines expertise, understanding, and skills in all dimensions of the circular economy - on technical, ecological, social, and economic levels. This master's program was jointly designed and developed by three departments at ZHAW (School of Life Sciences & Facility Management, School of Engineering, and School of Management and Law).

This master's program is a full-time study program and consists of a preparatory week and three semesters of intensive study. The language of instruction is English, and the teaching locations are Winterthur, Zurich, and Wädenswil. The mandatory modules are thematically grouped (Sustainability and Resources / Technology and Design / Companies and Organizations / Policy, Law, and Transformation / Behavior and Behavioral Change) and provide fundamental knowledge. The elective courses offer students the opportunity to prepare for individual, specific professional profiles.

www.zhaw.ch/sml/master-cem

Studienberatung:

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Preneurship for Regenerative Food Systems

In this new study program, you will initiate, develop, and implement innovative business models for a regenerative food system. It combines a deep understanding of sustainability with business skills, enabling you to shape regenerative food and nutrition systems. The program allows you to customize your studies according to your development goals and competencies. Emphasis is placed on practical relevance and application through various formats.

Admission is open to Bachelor's degree holders in fields such as economics, food and beverages, nutrition, environment, agriculture, biotechnology, hospitality management, and facility management. For other degrees, there is an admission process. The program lasts for 4 or more semesters and is primarily conducted in English.

Upon completion of the program, you will assume interdisciplinary networking and leadership roles in the agro-food industry as an intrapreneur, start your own entrepreneurial venture as an entrepreneur, or drive system change through social initiatives as a commonpreneur.

www.zhaw.ch/lsfm/master-preneurship

Studienberatung:

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Real Estate & 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 on the national and international job market and will be able to assume specialist and management positions.

www.zhaw.ch/ifm/master

Student Advisor:

Isabelle Wrase,
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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.

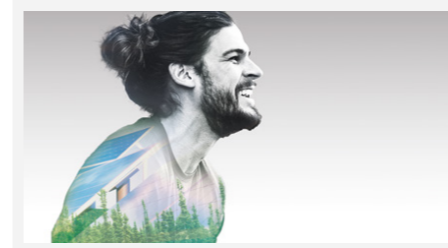
Ecological Engineering: Engineering, ecology and holistic thinking for a sustainable society.

As a Master's graduate, you will assume responsible positions in the increasingly important fields of environment and sustainability. Thanks to a collaboration with the University of Ljubljana, Slovenia, you can complete a fourth semester and thus obtain a double degree as well as eligibility for admission to doctoral studies.

www.zhaw.ch/iunr/master

Student Advisor:

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Life Sciences

In the Master of Science in Life Sciences, you will study at the forefront of science. You can choose from one of the four specializations, allowing you to specialize in your field and research expertise. From the beginning of your studies, you will become part of a research group, combining theory and practice.

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.

www.zhaw.ch/ias/master

Studienberatung: Manuel Gil, giln@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.

www.zhaw.ch/icbt/master-chemie

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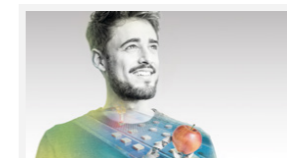


Food and Beverage Innovation

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.

www.zhaw.ch/ilgi/master

Studienberatung: Sandra Burri, burr@zhaw.ch,

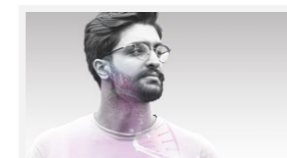


Pharmaceutical Biotechnology

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.

www.zhaw.ch/icbt/master-biotechnology

Studienberatung: Steffi Lehmann, leht@zhaw.ch



Important to know

International exchange

If you wish to complete part of your studies abroad, ZHAW offers numerous opportunities. Our students have the chance to study as guests at over 90 partner universities in 48 countries. The study advisors and experts at the International Office (IO) are available to provide guidance and advice regarding your options.

www.zhaw.ch/lsfm/international

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

Alias

Alias advocates for the interests of the students, represents their concerns, and promotes student culture at ZHAW. The association also organizes numerous activities and publishes the magazine «Brainstorm.» Upon starting your studies, you will automatically become a member of Alias and contribute a fixed fee as part of your tuition.

www.alias-zhaw.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

About us

The ZHAW

With over 14,000 students, ZHAW is one of the leading Swiss universities of applied sciences. Under the umbrella of ZHAW, there are eight departments consolidated. All ZHAW campuses - Wädenswil, Winterthur, and Zurich - are located within the economically strong Greater Zurich Area. These study locations offer a high quality of life and are well-connected by public transportation.

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. Currently, nearly 1,800 students are enrolled in bachelor's and master's programs at ZHAW. In addition to these programs, ZHAW also offers a wide range of continuing education opportunities and professional conferences to complement its offerings. 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 students to specialise in their original field of study and explore it in greater depth, and serves the acquisition of additional qualifications. Three consecutive Master's programmes are offered. The Bachelor's and Master's degree courses are available as both part-time and full-time study programmes.

www.zhaw.ch/lsfm/studium

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/weiterbildung

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

Studying and researching in Wädenswil: practically-oriented, creative, passionate and reflective

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.



Environment | Food | Health | Society
Our competencies in Life Sciences
and Facility Management.

ZHAW Campus Reibbach / Einsiedlerstrasse

ZHAW Campus Reibbach / Seestrasse

Wohnhaus für Studierende

ZHAW Campus Gruental

Contact

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www.zhaw.ch/lsfm/studium

Visit us



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