

Lucerne University of  
Applied Sciences and Arts

**HOCHSCHULE  
LUZERN**

Engineering and Architecture  
FH Zentralschweiz

# ARCHI TECTURE

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**STUDYING ARCHITECTURE  
IN SWITZERLAND**

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Training at the Lucerne School of  
Engineering and Architecture

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Lucerne, nestled on the shores of Lake Lucerne and surrounded by alpine foothills, is the largest city in central Switzerland and a center of culture, tourism and education. It boasts a well-preserved medieval quarter with a number of world-famous landmarks. It features a good selection of cinemas, museums, theaters, restaurants and sports facilities, as well as the renowned KKL Culture and Convention Center. Alongside the efficient, reliable and safe public transportation systems, Lucerne and the surrounding area are ideally suited to exploration by bicycle. Thanks to its central location and its excellent highways and public transportation, Lucerne is a convenient starting point for excursions to the rest of Switzerland and beyond. Two international airports, in Zurich and Basel, are each only about an hour's journey time away.



# STUDYING IN LUCERNE

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Lucerne is home to the Lucerne University of Applied Sciences and Arts, which has a broad spectrum of academic programs in engineering and architecture, business, social work, art and design, and music. The Lucerne School of Engineering and Architecture offers courses in the fields of architecture, interior design, civil and structural engineering, building technology, electrical engineering, computer sciences, mechanical engineering, and business engineering. The School focuses on extensive interdisciplinary research and group work in the unique subject areas of 'The Building as a System' and 'Intelligent Solutions for the Energy Turnaround'.

The Lucerne School of Engineering and Architecture is located on its own modern campus in Horw, just ten minutes from the center of Lucerne. The campus is equipped with state-of-the-art laboratories, lecture rooms, a library and study areas and is set in pleasantly landscaped gardens. The campus is easily accessible by both public transportation and bicycle. It is a short walk from the center of Horw with its banking and shopping facilities, and from Lake Lucerne with its many recreational opportunities. More than 1,900 undergraduates and graduates and 570 attendees on continuing education programs benefit from these outstanding facilities. With a focus on international collaboration with partner universities, the Lucerne School of Engineering and Architecture provides students with a welcome opportunity to experience an exchange semester.

# BACHELOR'S DEGREE PROGRAMS

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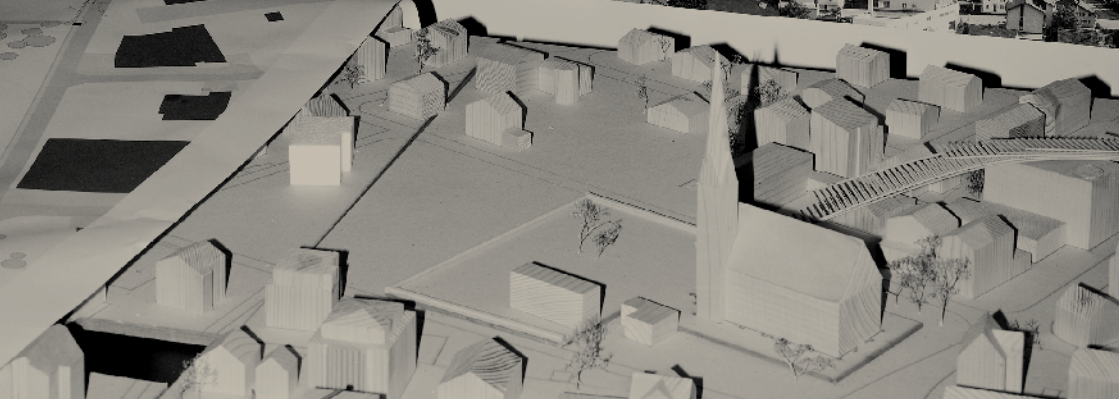
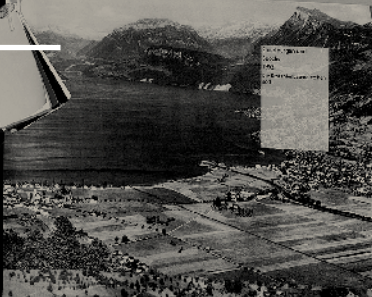
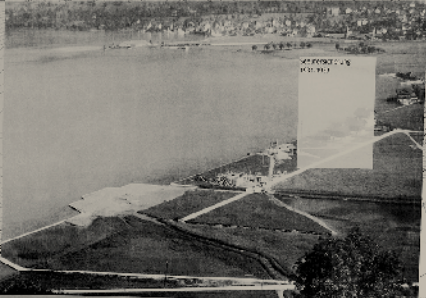
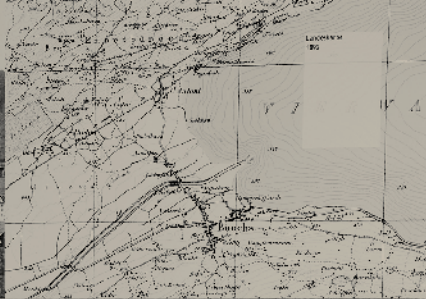
**'Achtung: die Schweiz'** develops an understanding of a building as a whole in the interaction of its technical requirements, artistic expression and cultural meaning. It focuses on the Swiss architectural period 1945–1970. Students study the interaction of design, construction technology and the significant relevance of Swiss crafts in the realization of projects during the cultural environment of the post war years and during the years of strong economic growth in Switzerland. They examine the influence of these projects on contemporary Swiss architecture and the question of tradition. ECTS credits: 3

**'Alpine Survival'** involves understanding a building as a response to the extreme requirements of its surroundings and how weather, topography and social conditions shape its architecture in a particular manner. The alpine environment is analyzed both as the result of, and having the potential to generate responsive architecture. The focus is on the alpine environment, construction technology and materials. ECTS credits: 6

**'Architecture & Tectonics'** introduces the fundamentals of design and gives the opportunity for students to apply their abstract knowledge of tectonics in a comprehensive context. The focus is on a tectonic approach with special attention paid to the physics of building, ecology and sustainability. ECTS credits: 6

The training in architecture offered by the Lucerne School of Engineering and Architecture is of immense practical relevance and covers a wide range of activities in the planning and construction process. The object of the training is to instill in students an awareness of sustainable, economic and socially responsible developments in the realm of building.

Representing the core of the training is the subject area 'The Building as a System' – by which we mean the design and realization of resource-conserving structures that meet the needs and expectations of people and the environment, now and in the future. With its multidisciplinary degree programs in architecture, interior design, civil and structural engineering and building technology, the Horw Campus provides the ideal setting for this training.



# MASTER'S DEGREE PROGRAMS

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The **project work** carried out in the Architecture & Structure Design Studio, in the Architecture & Material Design Studio and in the Architecture & Energy Design Studio forms the core of the semester's program. Students apply and develop foundational skills and knowledge by undertaking complex design assignments. They develop their individual architectural direction and so explore relevant subject areas in greater depth. The studio work benefits from close ties with academic research activities. Students' work is accompanied by roundtable talks, discussions in the group and with experts, as well as interim and final reviews. The objective for the students is to develop architectural designs that help them articulate their own architectural direction. ECTS credits: 12

**In-depth study** The aim of the module is to show working methods in research and the ways of thinking needed for successful research. Students write a research paper on a focal topic during the semester. The program is accompanied by workshops, discussions, roundtable talks, interim and final reviews. At the end of the semester, students present a concentrated treatment of their subject that delves deeply into a theoretical issue. ECTS credits: 6

**Focus lectures** constitute an interdisciplinary series of lectures on the three focal topics: materials, structure and energy. In-house and external experts as well as architects address these semester topics and the design task and deliver the fundamental knowledge required for the course. ECTS credits: 3

**Basic lectures** develop a fundamental knowledge of architectural theory and history through seminars, exercises, lectures and excursions. ECTS credits: 3

**Keynote lectures** are held alternately at the Lucerne School of Engineering and Architecture and the University of Applied Sciences Northwestern Switzerland FHNW. They allow architecture to be examined from an outside standpoint in six all-day seminars with guests from diverse subject areas. ECTS credits: 3

Every semester, students can select a **study trip** organized by one of the master's degree programs from the Lucerne School of Engineering and Architecture and the FHNW. The trips generally focus on a specific topic. ECTS credits: 3

The **master's thesis** is completed in the final semester, typically in the design studio in which the student enrolled at the start of the program. The thesis semester challenges students to work independently on a complex project. The professor in charge of the relevant area of focus, or the head of the degree program, assumes the role of thesis supervisor and assigns the thesis topic. In consultation with the head of the degree program, students develop their own research topic. Students' work is accompanied by roundtable talks, discussions in the group and with experts, as well as interim and final reviews. ECTS credits: 21

Building on the methods of the scientific approach and mindset, students explore subjects connected to their thesis project. The **thesis book** is another component of the thesis tasks. It describes the architectural project and comprises of essays on the three focuses: material, structure, energy. By debating these issues in their own projects, students refine and sharpen their critical architectural positions. ECTS credits: 6

**Strong craftsmanship has shaped the architectural culture in Switzerland for centuries.**

**This tradition continues to this day and reflects in the architectural programs offered by the Lucerne School of Engineering and Architecture.**

The Lucerne University of Applied Sciences and Arts and the University of Applied Sciences Northwestern Switzerland FHNW offer a Master of Arts in Architecture in addition to their bachelor's degree programs in Architecture. As the profiles of the two universities complement each other, this graduate degree program is both broad and focused. Design projects, with their particular specializations, can be completed in depth without neglecting further diverse topics in architecture. In Lucerne the emphasis is on the building as a system and the focus is on material – structure – energy; in Basel, where the building is examined in its context, the focus is on building – settlement – landscape. The inclusion of an obligatory exchange semester at one of our partner universities ensures that the training is comprehensive. The universities' complementary specializations are based on a consolidated, reciprocally negotiated definition of architectural theory, which is reflected in their tailored semester programs. Along with the prospectus and catalog of modules, these programs offer elaborate and detailed commentaries on the content of each semester course.

'The Building as a System' is the signature area of the Lucerne School of Engineering and Architecture and of its Master in Architecture degree. In our latitudes, we spend most of our lives inside buildings designed to provide shelter and serve our everyday and long-term needs with regard to work, education and habitation. Buildings house us in an encompassing way and can foster our physical, spiritual, emotional and creative growth. Constructing a building and fulfilling all of the above-mentioned tasks, needs and wishes calls for materials to make it, a structure to give it shape, and energy to make it habitable. At the master's degree level the significance of these three focuses – material, structure and energy – with respect to architecture is expanded to incorporate matter, notion and atmosphere. Together, these focuses can generate form and define identity. Now and in the future, buildings are embedded in a context, whether they are newbuilds, rebuilds or conversions. Given the cultural and technological complexity of accommodating this context, a coherent system can be realized only through interdisciplinary cooperation.





# ARCHITECTURAL RESEARCH

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The school stimulates a close collaboration between students, professors, researchers and external entrepreneurs through various projects during the course of studies. The outcome of this collaboration is a key success factor for the practical education of the students and for the industrial partners. These interactions give rise to innovative improvements in industry and also in the school's different Competence Centers such as the Testing Laboratory for Building Technology, Thermal Energy Systems and Process Engineering, and Typology and Planning in Architecture.

Research always focuses on the technical and the creative aspects of the process simultaneously. This implies an interdisciplinary approach. The three focuses – material, structure, energy – allow for a concentrated yet holistic view of architecture. This is essential because the agenda of research consists of constant improvement. Our competence centers in architecture consistently apply design as a point of departure – the moment of implementation between a concept and its realization.



The **Architecture Workshop** aims to develop spatial plastic thinking, designing with models, and an understanding of craftsmanship. Engaging with the scale 1:1 is of special relevance. There is an extensive range of high-quality hand tools available, such as Japanese chisels and saws, professional high-precision machines for model-making, woodworking and working with plastic materials and a CO<sub>2</sub> laser with a 900 x 600 mm surface, all available for personal use. Plaster and airbrush rooms are also available. In the Material Shop next to the Architecture Workshop, we offer a wide range of model-making materials and hand tools. An introductory course to the Architecture Workshop – use of which is at users' own risk – is obligatory.

**Materials library** In the field of construction, the relationship between materials and components on the one hand and spatial and load-bearing structures – as well as the infrastructure of a building – on the other, is of primary importance. When it comes to teaching and research, the physical presence of materials that are – or could become – of relevance to the field of construction not only acts as a stimulus, but is also a key aid to visualization. Access to these materials at the Lucerne School of Engineering and Architecture is provided via a materials library, which serves the purposes of teaching and research. Alongside the physical material samples, the library also contains electronic data sheets, downloadable from [www.materialarchiv.ch](http://www.materialarchiv.ch). A second materials library with a focus on pigments is located at the Lucerne School of Art and Design.

For documenting their architectural models, students have access to three professionally equipped workstations in a **photographic studio**. Included in the training is an introduction to camera and studio techniques.

# COST OF LIVING IN SWITZERLAND

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Food, accommodation and clothing can be expensive in Switzerland. Nevertheless, living expenses can vary greatly depending on personal circumstances and lifestyle. The following estimates provide a general guideline:

<b>Approximate expenses</b>	<b>CHF per month</b>
Accommodation	600
Food	400
Public transportation	50
Health insurance	200
Clothing, travel, entertainment, etc.	250
<b>Total</b>	<b>1,500</b>

## Contact

Lucerne School of Engineering  
and Architecture  
Technikumstrasse 21  
CH-6048 Horw, Switzerland  
T + 41 41 349 34 05  
exchange.e-a@hslu.ch  
www.hslu.ch/esp

