

# **A portrait** University of Basel.



# Evolution of our **University.**

Founded in 1460, the University of Basel is proud to be Switzerland's oldest university. Still, today's institution is very different to that of 1460. Over the centuries, it has evolved to become a regionally integrated, internationally respected research university with an extensive curriculum that enjoys an excellent position within the Life Sciences and other disciplines.

# Expanding its leading position

Well-respected rankings attest to the University of Basel's outstanding academic performance. However, the university needs to further consolidate and extend its leading position. Key in achieving this goal is the university's Strategy 2014. With a frame stretching as far as 2021, the strategy identifies untapped potential and defines development prospects, thus laying the foundations to position our institution firmly for the future.

The relationship between academia and society has changed profoundly in the past. Today, the university has a responsibility to more societal stakeholders in industry, culture, media and politics than ever before. Strategy 2014 outlines the University of Basel's response to this change: a stronger focus on society's expectations, and an increasing alignment with the Anglo-Saxon model.

Basel is not alone in its evolving sense of self. All modern universities consider themselves as brands – in the way the academic community views itself and, equally, in the way it is viewed by the outside world.



# The best talent for Basel

At the University of Basel, we offer our own individual answer to the changes in the global university landscape. We build on our strengths. We establish a distinctive profile to succeed in attracting the best talent from across the world. As an academic community, we continuously strive to fulfill our obligations to the people of the Basel region, who benefit from the university's expertise through a range of educational offerings. The University of Basel will expand its global focus even further in the future, while continuing to play a central role in shaping the identity of north-west Switzerland.

A. Johnh - fin.

Professor Andrea Schenker-Wicki, Rector of the University of Basel

# Our **successes.**

WORTHY OF A NOBEL PRIZE Two researchers working at the University of Basel have received the Nobel Prize for Physiology or Medicine: In 1950, Chemist Tadeusz Reichstein won the award for his research into the hormones of the adrenal cortex, and microbiologist Werner Arber in 1978 for the discovery of restriction enzymes.



IN THE TOP TEN

Leading higher-education rankings such as the "Academic Ranking of World Universities" place the University of Basel among the world's 100 best universities. Within the German-speaking countries, it is one of the top ten.

### **GRAND TRADITION**

Founded in 1460, Basel is Switzerland's oldest university. Its students and teachers have included such great minds as the physician and alchemist Paracelsus, mathematicians Jakob Bernoulli and Leonhard Euler, and philosophers Friedrich Nietzsche and Karl Jaspers.

#### OASIS CENTRAL

Established in 1588, the Botanical Gardens of the University of Basel are the oldest of their kind in the German-speaking region. They began as a hortus medicus – a garden for the purposes of study containing herbs used to produce remedies.

## **BEACON FOR LIFE SCIENCES**

Life Sciences are the main focal area at the University of Basel, closely linked with Basel's status as a center of pharmaceuticals and biotechnology. Other thematic focal areas reflect factors such as Basel's artistic and architectural offerings.

#### PLACE FOR GLOBAL CITIZENS

As a border city, Basel is not only close to Germany and France, but also has a large English-speaking community. Its spirit of openness and its international flair are a key source of inspiration for Basel's academic landscape.

# Science – made in Basel.

The University of Basel forms the center of Basel's academic and research activities. Developing a strong profile gives the University an international appeal.

The University of Basel is supported by the cantons of Basel-Stadt and Basel-Landschaft and is strongly rooted in the trinational region on the Upper Rhine. On the global stage, too, the University more than holds its own among the world's best research and teaching institutions. Rankings attest to the University of Basel's outstanding position with regard to research. With a distinctive curriculum in all fundamental academic subject areas, it offers excellent conditions for students from Switzerland and around the world. Its profile within the Life Sciences has gained for the institution a reputation for excellence.

## Strength through growth

The University of Basel has grown considerably over the past few years and now has around 13,000 students and PhD students. To make optimal use of this academic potential, the University focuses on internationalization – recruiting first-class early career researchers at Master's and doctoral level, participating in flagship research programs and entering into new collaborations with leading educational institutions. All this allows the University of Basel to maintain and build on its strengths.



Main building of the University of Basel: The "Kollegienhaus" opened on Basel's Petersplatz in 1939.

### **NETWORKED WITH PARTNER INSTITUTIONS**

The University of Basel works closely with distinguished research institutions such as the Friedrich Miescher Institute for Biomedical Research (FMI), founded in 1970, or the long-established Swiss Tropical and Public Health Institute (Swiss TPH). Swisspeace, the research institution based in Bern, has been associated with the University of Basel since 2010, while the Basel Institute on Governance – a think tank focusing on global, corporate and public governance – has been involved since 2013.

# At the cutting-edge **of research**.

The University of Basel is a research university with a high output of academic publications and a wealth of strong partnerships.

The University of Basel's place among the 100 best universities worldwide is confirmed by the annual "Academic Ranking of World Universities" published by Shanghai Jiao Tong University. This recognizes the large number of academic publications by the University of Basel that appear in leading academic journals as well as the frequency with which the findings of its researchers are cited. The University of Basel is committed to encouraging and supporting excellence. Centers of excellence and research platforms generate interdisciplinary synergies. Of notable importance are the close collaborations with the University of Applied Sciences and Arts Northwestern Switzerland, the Department of Biosystems Science and Engineering (D-BSSE) and other ETH institutions, as well as with research partners in the region's biochemistry and pharma industries.

## CULTURE OF QUALITY IN TEACHING AND RESEARCH

The University of Basel has dedicated itself to achieving a culture of quality throughout the entire institution. The quality of research is ensured by monitoring publications, external funding, academic awards and further parameters. Quality management also incorporates the evaluation of classes, degree programs and the organizational structure. External quality checks guarantee academic excellence in accordance with established standards.



#### FACULTY OF THEOLOGY

Focal areas take account of the urban and religiously diverse environment and consider the interaction between Christianity and other forms of religion.

### FACULTY OF LAW

Teaching and research at the Faculty emphasize regional and international focal areas such as Commercial Law and Life Sciences Law.

### FACULTY OF MEDICINE

Focal areas include Immunology, Oncology, Neuroscience, Cell Plasticity and Tissue Repair, and Biomedical Engineering.

#### FACULTY OF HUMANITIES

The Faculty offers a broad variety of subjects, most prominent of which are Visual Studies and European and Global Studies.

#### FACULTY OF SCIENCE

Key focal areas include Life Sciences, Nanophysics and Quantum Physics, Chemistry, Computational Sciences and research into new materials and energy forms.

#### FACULTY OF BUSINESS AND ECONOMICS

The Faculty incorporates both Business and Economics and has a new focus on research into sustainability and energy.

### FACULTY OF PSYCHOLOGY

The Faculty has committed itself to three focal areas: Clinical Psychology and Neuroscience; Social, Economic and Cognitive and Decision Psychology; Developmental and Personality Psychology.

# Defining a profile through focal areas.

A broad range of subject areas lends the University of Basel authority and reputation. Thematic focal areas create an unmistakable profile.

All universities dedicated to excellence focus on specific areas in their teaching and research. Academic institutions use this focus to make their mark among the domestic and international competition. Achieving prominence in specific areas requires a distinctive curriculum. On this basis, developing disciplinary focal areas helps to harness all available potential in teaching and research. It sets the University apart and provides milestones for future development. In its Strategy 2007, the University of Basel established thematic focal areas and further developed these in Strategy 2014. These areas are defined from the bottom up, taking into account present social and economic concerns. Developing a profile is a living process that adapts

		Faculty of Theology	Faculty of Law	Faculty of Medicine
¥	LIFE SCIENCES		•	
႞ၜၟ	VISUAL STUDIES			
Ø	NANOSCIENCES			•
৮	SUSTAINABILITY AND ENERGY RESEARCH			
∷₿	EUROPEAN AND GLOBAL STUDIES	•		

# SEVERAL FACULTIES ARE INVOLVED IN THE THEMATIC FOCAL AREAS

dynamically to current requirements. Thematic focal areas represent the variety of research conducted throughout the University and generate synergies among the faculties.

# Strategic potential

Basel has systematically expanded its profile within the Life Sciences and added the related focal area of Nanosciences. Over the past few years, the area of Visual Studies has become established within the humanities. These achievements at the University of Basel tie in with the expansion of research into sustainability and energy. At the same time, Basel's traditional strength in European research has been extended to European and Global Studies. The thematic focal areas at the University of Basel differ in scope and emphasis. Together, they offer strategic potential for development.

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![](_page_11_Picture_0.jpeg)

The University of Basel has achieved global prominence in the **LIFE SCIENCES**, shaped by intensive collaboration with partners in business and industry.

# Understanding **what makes life tick.**

Life Sciences were the first focal area established at the University of Basel. The University is among the world's 50 best institutions in this field and among the top ten in Europe.

The following subjects form the core of teaching and research: fundamental molecular and biomedical research, systems biology, stem cell and cancer research, neuroscience, infection biology, nanomedicine and the pharmaceutical sciences. Translational research approaches bridge the gap between basic research and potential applications.

# Network of research, clinics and industry

The University of Basel is part of a unique partner network comprising research institutions, clinics and industrial companies. One person to grace the interdisciplinary Biozentrum was Werner Arber, one of the co-founders of molecular biology, who received the Nobel Prize for Physiology or Medicine in 1978 for discovering the restriction enzymes used to produce DNA fragments. Plans for the future include new buildings for the Biozentrum and the ETH Department of Biosystems at the Schällemätteli Life Sciences campus.

# Fertile ground for start-ups

The Basel region is home to one of the world's most successful Life Sciences clusters, with more than 700 companies and an annual turnover of 100 billion dollars. Two of the world's largest pharma companies, Novartis and Roche, are based here. This makes the area ideal for resourceful researchers: More than 100 start-ups have been launched here in the last ten years. Development is driven in particular by the strategic expansion of health research and nanomedicine.

![](_page_13_Figure_0.jpeg)

The **VISUAL SCIENCES** focal area emerged from the "Iconic Criticism" (eikones) National Center of Competence in Research and is now firmly embedded at the University of Basel with several professorships.

# Learning to read **images.**

In recent years, the University of Basel has established a reputation as an internationally recognized center for the academic study of images.

In a world where images play an increasing role in generating and imparting knowledge, the function and impact of images have become extremely important. At Basel, Visual Studies question the empirical and historical contingencies of visual communication while laying the theoretical groundwork for iconic criticism.

# Interdisciplinary approach

One of the most important tasks in Visual Studies is to critically reflect on the development cycle of images. This involves examining images from art, science, economics, urban planning, philosophy and the history of language and writing. The research conducted within Visual Studies is a cornerstone of Basel's humanities and will explore new perspectives in art, design and architecture. At the same time, this focal area has links to research topics in the cognitive neurosciences and scientific imaging.

# Cooperation with art institutions

Renaissance painter Hans Holbein the Younger and art historian Jacob Burckhardt both played a role in the history of the University of Basel. Visual Studies build on this tradition. The University maintains an intensive collaborative relationship with research institutions and notable regional cultural institutions such as the Schaulager in Münchenstein and the Kunstmuseum Basel.

![](_page_15_Picture_0.jpeg)

The **NANOSCIENCES** focal area at the University of Basel offers firstrate potential for developing new technologies.

# Inspired by **the nanocosmos.**

Nanosciences have become firmly established in Basel: The Swiss Nanoscience Institute is a well-connected center of excellence with international influence.

The Nanosciences concentrate on objects in the smallest spatial dimensions and have many practical applications. As an interdisciplinary area, they provide fresh momentum for the Life Sciences, Medicine, Energy Research, and Information and Communication Technologies. The University of Basel was the first Swiss higher education institution to set up an academic program in Nanosciences and also offers a PhD program in the subject.

# From fundamentals to application

At Basel, the Nanosciences combine basic and application-oriented research. Priority is given to nanobiology, quantum computing and quantum coherence, atomic and molecular nanosystems, molecular electronics and functional materials. The development of initiatives in molecular systems, nanomedicine, imaging, material sciences and sustainability research aims to further expand this focal area.

# Industry partnerships

Basel's Nanoscience offering is closely linked with regional, national and international partners and acts as a hub uniting the activities of higher education institutions, research institutions and industrial partners. Basic and applied research projects in north-west Switzerland are coordinated under the auspices of the Swiss Nanoscience Institute.

![](_page_17_Picture_0.jpeg)

The focal area of **SUSTAINABILITY AND ENERGY RESEARCH** makes the University of Basel the ideal partner for major research programs currently underway in Switzerland and the EU.

# Shaping the energy revolution.

By combining Natural Sciences, Economics and Social Sciences, the University has established a position as a leading institution in Sustainability and Energy Research.

A sustainable approach to resources and the efficient use of energy are future-oriented topics of great political relevance. The University of Basel supports sustainable social development by affording particular attention to these issues in its teaching and research. The University of Basel has a wide range of expertise in Sustainability and Energy Research, be it in the Natural Sciences, Economics or the Social Sciences.

# Interdisciplinary problem-solving

The challenges presented by the environmental and energy sector require an interdisciplinary response. The focal area of Sustainability and Energy Research addresses this situation and fosters a dialog between various academic disciplines within the University.

# Competence center for energy research

Current projects range from economic, legal and social science topics associated with the withdrawal from nuclear energy through to the issue of sustainable energy and water use and applied research in the Nanosciences, Chemistry, Material Sciences and Physics. The University of Basel is the Leading House of the Competence Center for Research in Energy, Society and Transition (CREST), one of seven competence centers created by the federal government with regard to the energy revolution.

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Through the **EUROPEAN AND GLOBAL STUDIES** focal area, the University of Basel is also opening up to emerging regions in Africa and Asia.

# Discovering **new worlds.**

European and Global Studies enables the University to expand its expertise in European research to include a global perspective, with a key focus on Africa and East Asia.

At the University of Basel, European and Global Studies ties in with the institution's many years of experience researching European history and social science. The research focus tackles topics of global significance such as demographic ageing: By 2050, there will be more people over the age of 60 than under the age of 15. This development has profound economic, social and political consequences not only in Europe, but also in Asia and Africa. It raises questions that can only be answered using methods and concepts drawn from a variety of subject areas.

# Economics and urban planning in Africa

Traditionally, research into the African continent has focused heavily on aspects such as theology and history, culture and social sciences, environment and health. Now, the University of Basel is turning its research focus to urban planning and economics, as well.

## Strong links with China

Equally, China and, therefore, East Asia are attracting increasing attention. Contemporary Chinese culture, society and economics are becoming more and more important from a global perspective. New partnerships such as that with East China Normal University in Shanghai strengthen relationships with emergent Asian societies.

# International networks.

The University of Basel is taking on the global competition for the best ideas, collaborating with partner universities in the USA, Africa and Asia.

Located in a border city, the University of Basel has always had an international outlook. One in four students and PhD students come from abroad. The institution makes a sustained effort to attract talented young researchers from around the world, particularly on Master's programs. The University welcomes researchers from Europe, India, China and the USA. As an academic location, Basel is well positioned to compete for the best the world has to offer.

# Non-European partnerships

The University of Basel is specifically expanding its collaborations with universities outside Europe. Its work with Virginia Tech in Blacksburg, the largest university in the U.S. state of Virginia, already covers many levels. Its relationship with East China Normal University in Shanghai, one of China's most respected universities, has led to the foundation of a Confucius Institute at the University of Basel. And its partnership with the University of Cape Town, South Africa's oldest university (founded 1829), has great potential for the future. Today, Basel is already leading the way in bilateral research with South Africa.

# An international corner on the Rhine

International exchange provides mutual inspiration and triggers a productive race to find ideas for the future. In Basel, the University cultivates an international identity involving various activities such as English-language summer schools. Guest lecturers, exchange students and PhD students enrich the teaching and research

![](_page_22_Picture_0.jpeg)

that takes place in Basel. The University uses English as a second language of communication and offers internationally competitive terms of employment.

# Bilateral research groups

Building on its international identity, the University invests in collaborations, research projects and partnership initiatives both within Europe and worldwide. In addition to partnerships involving the entire university, the focus is on bilateral collaboration in research groups and study programs. The University of Basel sees itself as part of a global scientific community.

# **Springboard for** resourceful early career researchers.

# The University of Basel combines the freedom of teaching and research with systematic career advancement and progressive academic teaching.

The University offers high-quality degree programs at Bachelor's, Master's and doctoral level. Many of the Master's programs are interdisciplinary in nature and aimed at the University's focal areas. Students in Basel benefit from a very good staff to student ratio. The positive study environment attracts large numbers of foreign students, particularly from Germany.

# **Competitive PhD programs**

As part of the Bologna process, the University of Basel has modernized its PhD programs. Structured educational formats are being allowed increasing freedom, enhancing the conventional, individual supervision of doctoral dissertations. A particular strength are internationally competitive PhD programs in a defined discipline or topic area and open to applications. Where possible, these programs incorporate designated partner organizations. Mentoring programs also provide optimal coaching for early career researchers.

# Advantages of teaching in English

The University gives high priority to talent promotion, creating a professionally attractive and financially competitive environment for assistants, postdocs and assistant professors. Providing grants and releasing staff from teaching duties provide additional incentives for excellent research. The use of English in teaching and correspondence makes the University of Basel even more attractive to early career researchers who do not speak German.

![](_page_24_Picture_0.jpeg)

# An eye on future potential

The University is committed to research-based teaching measured against the highest international standards. A flexible promotion system offers talented early career researchers a career path from assistant professor to associate professor and, finally, to full professor. Promotions are based both on a person's current performance and on their potential. External evaluations and the application of the latest academic educational theory help assure the quality of teaching. Equal opportunities also take priority.

# The power of **tradition**.

As Switzerland's oldest university, Basel has a rich and fascinating history in teaching and research spanning more than 550 years.

![](_page_25_Picture_2.jpeg)

On April 4, 1460, Bishop Johann von Venningen appoints Georg von Andlau (left, kneeling) as the first Rector and presents mayor Hans von Flachslanden with the foundation charter.

### 1460

The University of Basel opens with a foundation ceremony in the Minster.

![](_page_26_Picture_2.jpeg)

#### 1527

Physician, alchemist and philosopher Paracelsus teaches as a Professor of Medicine.

### 1588

An anatomy theater and hortus medicus (later the Botanical Gardens) are established.

#### 1590

The University Library is expanded to include 2,700 books from the former monastery libraries.

#### 1661

Together with the University, the City of Basel purchases a private collection of artworks, objects and books. The "Amerbach Cabinet" is opened to the public in 1671.

#### 1822

The course directory appears in German, rather than Latin.

### 1869

Friedrich Nietzsche assumes the chair as Professor of Classical Philology.

#### 1890

Emilie Louise Frey becomes the first woman admitted to study (Medicine).

### 1938

Elsa Mahler (back), Associate Professor of Russian Language and Literature, becomes the first female professor appointed to her Alma Mater Basiliensis.

![](_page_26_Picture_19.jpeg)

#### 1939

The "Kollegienhaus" on Petersplatz becomes the University's new main building.

#### 1950

Tadeusz Reichstein, Professor of Organic Chemistry, receives the Nobel Prize for Medicine.

#### 1965

The construction of the new University Library is completed.

### 1971

The Biozentrum provides an interdisciplinary Center for the Life Sciences.

#### 1978

Microbiologist and geneticist Werner Arber receives the Nobel Prize for Medicine.

![](_page_26_Picture_30.jpeg)

#### 1996

The University becomes independent of cantonal administration.

#### 2003

The Faculty of Psychology becomes the seventh faculty at the University of Basel.

# Facts and Figures **2014.**

![](_page_27_Picture_1.jpeg)

founding of the University Basel

13248

students and PhD students

![](_page_27_Picture_5.jpeg)

faculties

![](_page_27_Picture_7.jpeg)

percent of students are female

![](_page_27_Picture_9.jpeg)

professors

![](_page_27_Picture_11.jpeg)

new students in 2014 fall semester

707

million CHF annual budget

130

million CHF of external funding acquired

![](_page_27_Picture_17.jpeg)

percent international students and PhD students from over 100 countries

### Study level

With 22 percent PhD students, Basel has a high proportion of early career researchers.

![](_page_28_Figure_2.jpeg)

![](_page_28_Picture_3.jpeg)

## Financing (in percent)

Basel-Stadt and Basel-Landschaft provide almost half the University's funding.

![](_page_28_Figure_6.jpeg)

## Students

Humanities and Science are Basel's largest faculties.

![](_page_29_Figure_2.jpeg)

- Faculty of Theology
- Faculty of Law
- Faculty of Medicine
- Faculty of Humanities
- Faculty of Science
- Faculty of Business and Economics
- Faculty of Psychology
- Cross-faculty

# Origins

Around one quarter of students and PhD students come from abroad.

![](_page_29_Figure_13.jpeg)

# Origins

15 percent of international students come from outside Europe (figures 2013).

![](_page_30_Figure_2.jpeg)

# Rankings

Of the 12,000 universities worldwide, Basel is among the 150 best institutions.

	2010	2011	2012	2013	2014	2015
Academic Ranking of World Universities	86	89	85	83	90	87
QS World University Rankings	n/a	151	121	110	116	
THE World University Rankings	n/a	95	111	142	74	75

# Built **for the future.**

The University of Basel is preparing for the future with an ambitious building program. This will be set in motion by the spectacular new Biozentrum.

Over the next few years, the University will concentrate on three main sites: The Petersplatz campus is the center of Humanities, Cultural Studies and Social Sciences. It houses the Rectorate and the University Administration.

The Schällemätteli campus, close to the University Hospitals, is developing into a center for natural sciences. Biomedicine, Nanosciences, Physics, Chemistry and the ETH Department of Biosystems group around the new Biozentrum. This Life Sciences cluster enables intensive collaboration with industry and start-ups.

The Rosental campus encompasses, among other things, Environmental Sciences and Dental Medicine. Other sites include the Bahnhof (Faculties of Law and Business and Economics) and St. Jakob Park (Sports Sciences).

By 2017, the University's new Biozentrum will reach up 73 meters into the Basel sky. The new building has room for 800 students and 600 employees and embodies the University of Basel's major building program. By 2030, more than one billion francs will be spent on enlarging and modernizing the academic building infrastructure. Still however it develops in the future, the University will preserve one of its greatest assets: Its location in the center of Basel, with its urban quality of life.

![](_page_32_Picture_0.jpeg)

The new Biozentrum at the University of Basel will open in 2017.

![](_page_32_Picture_2.jpeg)

The University is concentrating on five sites: The Rosental campus (1), Schällemätteli campus (2), Petersplatz campus (3), Bahnhof site (4) and sports site (5).

# A university **open to all.**

At the University of Basel, institutions share their knowledge with the general public. The thrilling experience of research becomes an integral part of society.

Beyond academic teaching and research, the University of Basel engages in a lively exchange with society, culture and business. Its focal areas reflect current political and social developments and help to advance our community. As part of its responsibility toward the cantons that support it, the University provides a wide range of services open to anyone in the region who is eager to learn.

![](_page_33_Picture_3.jpeg)

#### **BOTANICAL GARDENS**

Thrill tens of thousands of plant lovers with their blooming titan arum and many other treasures.

#### CAFÉ SCIENTIFIQUE

Relaxed yet complex debates in a congenial café atmosphere with leading figures from research, the humanities and arts, industry, politics and public life.

### CHILDREN'S UNIVERSITY BASEL

Opens up the University every spring semester to 900 children aged 8 to 12 with topics specially tailored to their interests.

#### **MUSEUMS**

The University's Anatomical Museum and Pharmacy Museum provide unique insights into the development of medical research.

#### BASEL ADULT EDUCATION CENTER

Offers courses for adults (with particular consideration for senior citizens) on topics such as the environment and nature, health, design, art and culture, society, work and communication, and foreign languages.

## CONTINUING EDUCATION

Under the name "Advanced Studies", the University of Basel offers a wide range of part-time continuing education degree programs for professionals in all subject areas. Basel Advanced Studies range from one-day courses and lecture series to the Diploma of Advanced Studies (DAS) and Master's programs.

#### UNIVERSITY LIBRARY BASEL

With its extensive stock, the library provides academic information to the University and the people of the Basel region.

#### IMPRINT

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# **Educating Talents** since 1460.

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